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ART. CCIII.—*Variety and Uses of the Pines and Spruces; prepared from Michaux's North American Sylva.* By the EDITOR.

Red Pine, Pinus rubra. This species of the pine is found as far south as the Hudson River, and extends to the regions north of Lake Superior. It grows to the height of 70 or 80 feet, and in diameter two feet. The trunk is of a uniform size for two thirds of its length. The bark is of a clearer red than other species in the U. States. The leaves are of a dark green, 5 or 6 inches long. The cones are about two inches long. The concentrated circles are crowned, and the wood exhibits a fine compact grain. It is rendered heavy by the resinous matter it contains, and is highly esteemed for strength and durability, and is used in ship building, particularly for the decks of vessels, furnishing planks forty feet long without knots. When freed from its sap it makes durable pumps.

Grey Pine, Pinus rupestris. In Nova Scotia and Maine this is called *Scrub* pine. In the vicinity of Hudson Bay, few individuals are seen growing in the crevices of the rocks, but not reaching a height to exceed three feet. The cones are about two inches long, of a grey color. The Canadians boil these cones, and drink the water for colds.

Yellow Pine, Pinus mitis. This tree is widely diffused throughout North America. In the Carolinas and in Georgia, it is called Spruce or short-leaved pine. This is a beautiful tree, having a pyramidical summit. It attains, in New Jersey and Maryland, a height of 50 or 60 feet, and is of a diameter of 15 to 18 inches. In Virginia, the trunk is often 5 or 6 feet in circumference. The leaves 4 or 5 inches long, are fine, flexible, hollowed on the inner surface, of a dark green, and united in pairs. The cones do not exceed an inch and a half in length. The concentrated circles of the wood are six times more numerous, in a given space, than those of the Pitch and Loblolly Pines. The sap part of the wood seldom exceeds two and a half inches. The heart is fine grained and moderately resinous. This tree is much used in building houses, for floors, casings, doors, wainscots, and sashes of windows. It is also used in ship building for decks, masts, yards, and beams. That from New Jersey and Maryland is finer grained, and stronger than that growing on the richer lands of the Delaware river. It is quite an article of exportation to the West Indies. Turpentine and tar are obtained from it with considerable labor.

New Jersey Pine, Pinus inops. This tree grows in the sandy soil of the southern part of N. Jersey. It is also found in Maryland, Virginia, Kentucky, and Pennsylvania. Some times it reaches 30 or 40 feet in height, and 12 or 15 inches in diameter. The tree contains too much sap to make it valuable.

Table Mountain Pine, Pinus pungens. This tree receives its name from the Table Mountain in N. Carolina, which is its exclusive locality. The height of this pine is about 40 or 50 feet. The buds are resinous, and the cones three by two inches.

Long-leaved Pine, Pinus australis. This tree is known by several other names, as Yellow, Pitch, Broom, and Southern Pine. In the Carolinas, Georgia, and the Floridas, it extends over a tract more than 600 miles long, and 100 broad. The mean stature of the Long-leaved Pine is 60 or 70 feet, with a diameter of 15 or 18 inches for two thirds of its height. The leaves are about one foot long, of a beautiful brilliant green, three united in the same sheath. On the young shoots the leaves are so long as to be used by the negroes for brooms. The buds are very large, but not resinous. The cones, seven or eight inches in length, sometimes contain seeds in abundance, which are voraciously eaten by wild turkeys, swine, and squirrels. This pine has but little sap. The wood is fine grained, susceptable of a polish, and very durable. It is very extensively used, for building houses and for naval architecture. For decks it is prefered to the true yellow Pine. In Liverpool, where is is called Georgia Pine, it is sold from 25 to 30 per cent higher than any other from the U. States. Most of the resinous matter consumed in the U. States, is obtained from this tree. There are six kinds of resinous products, turpentine, scrapings, spirit of turpentine, rosin, tar, and pitch. The two last are delivered in their natural state; the others are modified by the agency of fire in certain modes of preparation. Turpentine is the sap of the tree obtained by making incisions in the trunk of the tree. The scrapings is a coating of the sap which becomes solid. Spirits of turpentine is made by distilling turpentine in large copper retorts. The residuum of this distillation is rosin. Tar is made from fallen and dead trees, cut up in small pieces, and made into kilns similar to those for making charcoal. Pitch is tar reduced by evaporation.

Pond Pine, Pinus serotina. This tree abounds in the maritime districts of the southern states. The leaves are five or six inches in length, the cones two and a half inches long, and commonly in opposite pairs. The height of the tree rarely exceeds 35 or 40 feet. Owing to the great quantity of the sap, the tree is but lightly estimated.

Pitch Pine, Pinus rigida. This is sometimes called Black Pine. It is found more or less abundantly throughout the U. States. In Vermont it is found to the height of 12 or 15 feet; on the ridges of the Alleghany 35 to 40; and in the swamps or lower parts of N. Jersey and Maryland 70 or 80 feet. The bark is thick, blackish, and deeply furrowed. The tree is remarkable for the number of its branches, which occupy two thirds of the trunk. On mountains and gravelly lands the wood is compact, heavy, and surcharged with resin; in swamps, on the contrary, it is light, soft, and composed almost entirely of sap.

That on the Alleghanies is esteemed superior to others for the floors of houses that are frequently washed. This tree formerly abounded in the New-England states, from which, in the year 1705, considerable tar was exported to England under a premium of one pound sterling for eight barrels.

Loblolly Pine, Pinus tæda. This is often called White Pine. It is found throughout the lower parts of the Southern States. In Virginia, lands that have been exhausted by tillage are exclvsively covered with this species of Pine. For five or six miles around Charleston, S. C. the Loblolly occupies the soil. The leaves are fine, six inches long, three united together. The cones are four inches long. The height of the tree exceeds 80 feet, with a diameter of two or three feet. The trunks often afford cylinders of 50 feet, clear of knots, but in those of the diameter of two or three feet, the alburnum or sap part is often 30 inches. For fuel, it is often sold one third less than the long leaved pine. It affords turpentine in abundance, except when on dry soils with slow growth, it is considered an inferior pine.

White Pine, Pinus strobus. In New-Hampshire it receives the secondary names of Apple and Sapling Pine. The leaves are five fold and four inches long. The cones are four or five inches in length, pendunculated, and pendulous. It prevails most abundantly between the 43d and 47th degrees, but is found in favorable situations further south. These trees sometimes attain to the height of 150, and even 180 feet, having a diameter of four to five feet. The wood of this species is used in greater quantities, and for more diversified purposes than any other of the American Pines. It has but little strength, gives a feeble hold to nails, and swells by humidity, yet it is durable, light, easily wrought, and free from knots, furnishes boards of great width, and is abundant and cheap.

Mr. Michaux states that the influence of soil is greater upon resinous than upon leafy trees. This is particularly the case with White Pine. A light, deep, and humid soil is favorable. Throughout the Northern States, seven tenths of the houses, except the large cities, are of wood, three quarters of which, estimated at 500,000, are built of this tree. It is used for ornamental works, such as cornices, friezes, and mouldings. It receives guilding well, and is therefore used for the frames of looking glasses and pictures.

Black or Double Spruce, Abies nigra. This tree is most abundant betwen the 44th and 53d degrees of latitude, and 55th and 75th of longitude. The leaves are of a dark gloomy green, only 4 lines in length, attached singly to the surface of the branches. The flowers appear at the extremity of the twigs; and succeeded by small reddish oval cones. The height to which this tree attains in a favorable soil, is 70 or 80 feet. The trunk, unlike that of the pines, is smooth, remarkable for its perpendicular ascension, and for its regular diminution from its base to its summit. The distinguishing properties of the Black Spruce are strength, lightness, and elasticity. It is very generally used for spars. The knees of vessels are also sometimes made of this tree. Great quantities of spruce boards are exported to the W. Indies and to England. From the young branches, the drink known by the name of *spruce beer* is obtained.

White or single Spruce, Abies alba. This species is indigenous to the same districts of country as the preceding, extending, however, farther south. The leaves of this kind are longer, more pointed than those of the Black Spruce, and of a pale bluish green. The cones are of a lengthened oval, two inches long. This tree rarely exceeds 50 feet in height. The wood is inferior to the black, and snaps more in burning. The fibres of the roots deprived of their pellicle, are used to stitch together canoes of birch bark. The branches when used for beer, communicate an unpleasant odour. Producing a fine contrast with the darker foliage of other spruces, it is esteemed a valuable ornament for parks and gardens.

Hemlock Spruce, Abies canadensis. In Canada it is known by the French name Pérusse. It is most common in the northern states, extending to Hudson Bay. This tree attains the height of 70 or 80 feet, with a circumference of 6 to 9 feet. The leaves are 6 or 8 lines long, flat, and numerous. Owing to the symmetrical arrangement of the branches and to its tufted foliage, this tree has an elegant appearance, in a favorable soil, and less than thirty feet high. Though very abundant, it is of secondary importance, except its bark which is extensively used for tanning. It decays rapidly when used for external covering. It is much firmer than white pine, and is used in Maine for threshing floors, and very generally for lathes. In the latter form it is exported to England. Posts for fence made of it will last about fifteen years. The bark for tanning is not so good as that of the oak, but both together are said to be better than either alone.

American Silver Fir, Abies balsamifera. This is often called Fir Balsam, and Balsam of Gilead. This is a native of the colder regions of our country, but is found on the higher parts of North Carolina. It grows to the height of 40 feet. The leaves are 6 or 8 lines long, and inserted singly on the sides and on the ends of the branches. They are of a bright green above, and silvery white beneath. The cones, always directed upwards, are four or five inches long. The wood is light, slightly resinous, with a yellowish heart. Resin is extracted by incisions in the body of the tree. The fresh turpentine is a greenish transparent fluid, and recommended in certain stages of pulmonary consumption. The Silver Fir of Europe is analagous to this, but has longer leaves, larger cones, and grows to a greater height. The true Balm of Gilead is from the *Amyris Gileadensis*, a very different vegetable, a native of Asia.

The most striking difference between the Pine and the Spruce, is in the arrangement of the foliage; the leaves of the pine, resembling coarse thread, vary in length in different species, and are united to the number two, three or five in the same sheath; those of the spruces on the contrary, are only a few lines long, and attached singly around the branches or upon opposite sides.

ART. CCIV.—*History of Insects.—Aphides and Syrphi.*

[One volume of the series of the Family Library, now publishing by the Messrs. Harpers of this city, is devoted to the history of Insects—a subject among the most interesting to which a writer can devote his pen. It augurs well for the age to see a branch of natural history in a collection of popular volumes. It implies

that the reading public have a willingness to make further advances in their knowledge of nature than is derived from the common and superficial acquaintance. We know of no kind of popular scientific reading productive of greater good than that of animated nature, particularly entymology. Unlike the studies relating to the doings of mankind, it is always presenting objects leading to a train of interesting thought.

The series contains sketches of the lives of some of the most distinguished men, who have figured in the convulsive and tragic scenes of the world. Several volumes are published, each containing about 300 pages of closely printed matter, making a very valuable little 'Library' for every family. The following lengthy extracts will give some idea of the volume on the History of Insects.]

Among the most curious of those animals which are parasitical on plants, is the aphis, or plant-louse. It is an insect common enough in our fields and gardens, and there is scarcely a tree or shrub which is not attacked by one or more species peculiar to itself.—Some are winged, and others have no wings; and some are black, green, brown, in short, all colours: but however they may vary in these non-essentials, their habits and instincts are similar. They live in society, and attach themselves to the stems, the leaves, and roots of shrubs and vegetables, the juices of which they suck by means of a tube, with which they are furnished for the purpose; and they frequently cling in such numbers to the sustaining plant, as to give it a most unsightly appearance.

If the rose-tree, or any other plant, be carefully examined, some portion of it will be covered with little transparent insects of a green colour. They appear to be in a state of perfect repose: they are, however, in reality, diligently occupied in pumping out the juices of the plant.

The length of the sucking pump or trunk, in some species extends beyond the body; when they walk, it is folded under the belly: in the generality, however, the ordinary length of this member is about one third that of the insect. While employed in using this instrument, they form at times two layers, one over the other; the second, or upper layer walk freely over the first, and not being able to suck, are diligently employed in bringing forth their young.

These immense societies of suckers must of course drain the leaf, and exhaust the juices of the plant to which they are attached: this is the fact, and, by Leenwenhoek, they have been truly termed the pests of the garden. However, the effect is occasionally curious enough; for instead of withering, the parts to which the aphides are attached, enlarge or twist, and by so doing furnish shelter to their enemies. The insect chooses the concavity of a shoot, for example, and this, through loss of juice being diverted from its straight direction assumes the shape of a corkscrew; in the concave folds of this diverted shoot it is that the aphis shelters itself from the weather.

Reaumur says that this curve takes place on the side from which the insect sucks the juices, for the same reason that a piece of wood soaked in water, and exposed to the action of fire, is bent to the side acted upon by that element. Another effect of the curling of the shoot is, that the leaves, which if extended, would stand far apart, are so drawn together as to form a complete covering, and thus the insects are at once defended from wind and rain, and concealed from the view of their natural enemies.

If shoots can be bent by insects which attach themselves to this portion of a plant, the leaves must of course be more easily susceptible of this operation.

Generally, they seek the under surface of the leaves, probably as that part which affords them most shelter. If the upper surface of a gooseberry, currant, or apple leaf be examined, it will be found studded with pale, reddish or citron-coloured eminences; and on the under surface, cavities will be discovered answering to these eminences, and peopled with aphides. These portions of the leaf are thicker than the rest.

A still more remarkable change of form is caused in the plant by the developement of galls formed by the plant louse. When opened, they will be found hollow, and filled with a colony of these creatures. In size they vary from that of a nut to that of the human fist.

It has been already stated that the formation of the true gall-nut is owing to the deposition of an egg in some part of a plant. But in the formation of the protuberances inhabited by the aphides there is this remarkable difference; that the parent, instead of burying her offspring, buries herself, and then, as the walls of her wonderful mansion rise up around and enclose her, she begins to people her abode. When Reaumur examined the smallest of these at its first formation, he found it tenanted by one old aphis only:—when he examined a larger gall-nut he found, in addition to the old aphis one or two young ones—and in a protuberance of a larger size still, he discovered a more abundant population. The mode by which the insect is at last thoroughly enclosed, is thus described by him:—"Let us imagine that the mother-aphis, still young, pricks the leaf; the punctured spot swells all around the insect, and consequently it becomes enclosed within a little cavity. If it continue to prick it at the lowest part of the cavity, this place will go on swelling in length, so as to become oblong or cylindrical. Let us conceive that the insect always continues to puncture it forwards; as soon as the gall has risen to a certain height above the superior surface of the leaf, the insect is no longer in its original position; viz. on the plane of the inferior surface of the leaf. Here then it is that there is a small opening into the incipient bladder; this aperture is only an indentation in the leaf. As soon as the insect removes from the aperture towards the other end of the bladder, nothing tends to hinder the bent sides from meeting soonest at the narrowest part, and so at last closing it up entirely. Here then, we have the insect shut up in an oblong sack or bladder. It brings forth young, these prick the gall, and suck the juice on all sides, so that being thus irritated in every direction, it grows in every direction, and consequently a globular form results. And as the punctures are always in a direction farthest from the original aperture, that part enlarges least; and consequently the gall appears to be attached to the leaf by a pedicle or foot-stalk."

Another class of aphides, which inhabit the poplar, instead of forming galls, contrive to double the leaf so nicely on the nerve which runs through the middle, as to bring the two edges exactly together, and so construct a closed sack. This they effect by pricking the under surface in various places, so as to give rise to small galls, which cause the leaf to curve. Reaumur

observes that these punctures must be made according to some definite measure on each side of the centre nervure, or else the edges of the two sides would not exactly meet. Besides these modes of protection, few species of aphides destined to live in the open air, have been discovered, which are not encased in a downy stuff.

The injury inflicted by the aphis may be estimated from the following extract :—"Our apple trees here are greatly injured, and some annually destroyed by the agency of what seems to be a very feeble insect. we call it from habit, or from some unassigned cause, the 'American blight' (aphis lanata); this noxious creature being known in some orchards by the more significant name of the 'white blight.' In the spring of the year a slight hoariness is observed upon the branches of a certain species of our orchard fruit. As the season advances, this hoariness increases, it becomes cottony, and towards the middle or end of summer, the under sides of some of the branches, are invested with a thick, downy substance, so long as, at times, to be sensibly agitated by the air. Upon examining this substance, we find that it conceals a multitude of small, wingless creatures, which are busily employed in preying upon the limb of the tree beneath. This they are well enabled to do by means of a beak terminating in a fine bristle; this being insinuated through the bark, and the sappy part of the wood, enables the creature to extract as with a syringe, the sweet, vital liquor that circulates in the plant. This terminating bristle is not observed in every individual: in those that possess it, it is of different lengths, and is usually, when not in use, so closely concealed under the breast of the amimal, as to be invisible. In the younger insects it is often manifested by protruding like a fine termination to the anus; but as their bodies become lengthened the bristle is not in this way observable. The alburnum, or sap wood, being thus wounded, rises up in excrescences and nodes all over the branch, and deforms it; the limb, deprived of its nutriment, grows sickly; the leaves turn yellow, and the part perishes. Branch after branch is thus assailed, until they all become leafless, and the tree dies.

"Aphides in general attack the young and softer parts of plants; but this insect seems easily to wound the harder bark of the apple, and by no means makes choice of the most tender part of the branch. They give a preference to certain sorts, but not always the most rich fruits; as cider apples and wildings are greatly infested by them, and from some unknown cause other varieties seem to be exempted from their depredations. The Wheeler's russet, and Crofton pippin, I have never observed to be injured by them. This insect is viviparous, or produces its young alive, forming a cradle for them by discharging from the extremity of its body a quantity of long, cottony matter, which, becoming interwoven and entangled, prevents the young from falling to the earth, and completely envelopes the parent and offspring. In this cottony substance we observe, as soon as the creature becomes animated in the spring, and as long as it remains in vigour, many round pellucid bodies, which, at the first sight, look like eggs, only that they are larger than we might suppose to be ejected by the animal.—They consist of a sweet, glutinous fluid, and are probably the discharges of the aphis, and the first food of its young. That it is thus consumed I conjecture from its diminution, and its by no means increasing so fast as fæcal matter would do, from such perpetually feeding creatures. I have not, in any instance, observed the young to proceed from these globular bodies, though they are found of various ages at all times during the season. This laguminous vestiture seems te serve likewise as a vehicle for dispersing the animal; for though most of our species of aphis are furnished with wings, I have never seen any individual of this American blight so provided, but the winds wafting about small tufts of this downy matter, convey the creature with it from tree to tree throughout the whole orchard. In the autumn, when this substance is generally long, the winds and rains of the seasou effectually disperse these insects, and we observe them endeavouring to secrete themselves in the crannies of any neighbouring trees whence they have been dislodged, the cavities of the under sides of its leaves are commonly favourite asylums for them. Multitudes perish by these rough removals, but numbers yet remain; and we may find them in the nodes and crevices, on the under sides of the branches at any period of the year, the long, cottony vesture being removed, but still they are enveloped in a fine, short, downy clothing, to be seen by a magnifier, proceeding apparently from every suture, or pore of their bodies, and protecting them in their dormant state from the moisture and frosts of our climate. This aphis, in a natural state, usually awakens and commences its labours very early in the month of March; and the hoariness on the body may be observed increasing daily; but if an infected branch be cut in the winter, and kept in water in a warm room, these aphides will awaken speedily, spin their cottony vests, and feed, and discharge, as accustomed to do in a genial season.

"It is often very difficult to ascertain the first appearance of many creatures not natives of our climate, though from the progress of science, and more general observation, many things will be recorded. The first visit of this aphis to us is by no means clear. The epithet of American blight may be correctly applied; but we have no sufficient authority to conclude that we have derived this pest from that country. Normandy and the Netherlands, too, have each been supposed to have conferred this evil upon us; but extensively as this evil is spread around, and favourable as our climate appears to be to its increase, it bids fair to destroy in progression most of our oldest and long esteemed fruit from our orchards. The same nnknown decree, which regulates the increase and decrease of all created beings, influences this insect; yet wet seasons, upon the whole, seem genial to its constitution. In the hot dry summer of 1825, it was abundant every where; in the spring of 1826, which was unusually fine and dry, it abounded in such incredible luxuriance, that many trees seemed at a short distance as if they had been white washed; in the ensuing summer, which was a very dry and hot one, this cottony matter so entirely disappeared, that to superficial observation the malady was not in existence; and it did not become manifest again until September, when, after the rains of that season it reissued in fine, cottony patches, from the old nodes on the trees."

From the peculiar powers with which nature has invested the aphides, and from their extraordinary fecundity, for they are both oviparous and viviparous, no rational man can doubt that they form an important

link in the economy of the universe. Their inordinate increase is kept in check by other insects, which appear to be born for no other purpose than that of devouring them. Such is the voracity of this tribe, that naturalists term them aphidivorous insects: they are of different species, having few qualities in common except this faculty of devouring the plant-louse; the same instinct which impels certain insects to deposite their eggs in the midst of the food which is to support the yet unborn young, causes others, in like manner, to place their eggs in the midst of the habitations of the aphides. In this way the larvæ in some species of syrphus, and of hemerobius, are, as Reaumur says, "born in the midst of a people, pacific and unprovided with offensive or defensive arms, who patiently await the mortal blow without suspecting the quarter from whence it comes."

The strength and size of the syrphus, in comparison with its victim, the aphis, is that of a lion to a kid.

In the following magnified figure *(fig. 1)* it will be seen that the larva tapers from the head to the tail; under the head is a mouth, which *(fig. 2)* appears armed with two horny pins, and a trident-like dart; between these is the orifice of the mouth. The creature has the power of emitting a glutinous secretion, by means of which it fixes itself to a spot well stocked with aphides, where, like a wolf in a sheepfold, it commits the most dreadful havoc: thus attached to a stem or a leaf, there is no other animal of prey that hunts with so much ease. It begins by turning its head in all directions, backwards, forwards, and sideways, until it meets with a plant-louse, which it instantly transfixes with its dart; it then contrives to adjust the body of the aphis over its mouth like a cork, and in an instant the victim with its leg stretched out, is sucked dry.

Reaumur used to make these syrphi fast a few hours, and then placing one on his hand, he could with the assistance of a lens see the whole operation of feeding, and observe the juices, and even the young aphides sucked out of the body of their parent, go down the transparent gullet of the voracious larva. The drained skin of the aphis is then thrown aside.

It is easy to calculate, that if they ate incessantly they would destroy a prodigious number of aphides.

Reaumur has seen a piece of stalk seven or eight inches long, and covered with plant-lice, completely cleared in four days, by two or three aphidivorous worms.

After having eaten its fill, in its appointed time it seeks the hollow of a leaf, glues itself to it, and contracting its body into an oval, undergoes that species of a metamorphosis in which the insect retracts itself within its own skin, which, becoming hard, forms a cocoon, and ultimately appears in its perfect form of a fly.

Another enemy of the aphis is an insect, called by Reaumur the lion of the aphides (hemerobius.) "We sow grain," says he, "in our land for the purpose of providing ourselves with food. It appears that nature rears aphides on plants for the purpose of feeding other species of insects, which, without them, would perish of hunger."

The following figure is a larva of the lion of the aphides; a title which it well deserves from its voracity. The largest plant-louse is sucked by it in a few moments; and, like its prototype, it is not inactive, but hunts for its prey. They do not spare even each other; for, if by chance one of its own species should be found between its suckers, it makes not the least objection to this substitute for its natural food.

Reaumur shut up twenty of these ravenous creatures in a box, and supplied them with aphides for food; they were reduced in a few days to three or four, these having eaten the rest.

They spin a cocoon which is globular, and not bigger than a pea, and yet the full grown insect comes out with a pair of such ample wings, that it is a matter of astonishment how these, together with the insect could be packed up in so small a case. These wings are so fine that the solar rays are broken upon them as on a prism; indeed, the whole form of the insect, with its large, lustrous eyes, gossamer wings, the tender shining and golden green of its body, is strikingly beautiful.

The eggs which it lays are remarkable inasmuch as they present the appearance of parasitical plants, growing from the leaf to which they are attached; the stalks are about an inch in length, white and transparent.—The mode in which they are attached to the extremities of these hairs is thus explained by Reaumur.

The egg is enveloped in a viscous matter fit for forming silk. Being in part protruded, the insect applies the end of the egg bedewed with this substance to the leaf, and a portion of the glutinous stuff thus adheres to it. It then withdraws its abdomen, and by doing so, the viscid drop is lengthened out; by the time the egg is expressed, and the body of the insect withdrawn from it, it is found attached to a thread formed of glutinous matter, which now, being dry, is capable of supporting the egg. In due time the worm pierces its aërial habitation, descends upon the leaf, and finds itself in the midst of a colony of aphides, which it instantly attacks. The obvious use of these stalks appears to be to preserve the eggs from being covered or injured by the aphides. But whether this be the true explanation is uncertain.

The larva of another kind of hemerobius clothes itself in an artificial manner, and for this purpose uses the skins of those unfortunate plant-lice which it had previously sucked. Indeed, it piles up such a quantity of them on its back, as to look as if it carried a little mountain. This ostentatious exhibition of its trophies does not appear to arise from any sentiment of vain glory; for when Reaumur removed these skins, the insect clothed itself with the fragments of the cocoon; and on this coat, too, being taken away, an abundant supply of paper-shavings was placed within its reach: "Never," says Reaumur, "was so much convenient matter placed at the disposal of any insect of this kind; and accordingly a thicker, more complete,

and a higher vest was never borne, perhaps, by any other little lion."

The structure of the covering thus formed is rude enough. The parts adhere for the same reason that shreds of any thing adhere to one another. The insect, however, places them on its back with much address; it lays hold of the material or skin between its horns, so that it rests on its head; it then gives a toss, and pitches it to the desired spot; if not successful, a few contortions of its body bring it right. The reason of this anxiety to invest their bodies with such a strange covering appears to be to deceive the birds, which consider them as dainties—at least this is M. Dumeril's opinion. It is more easy to believe it when stated, than to know how the author of the assertion could find it out.

Another enemy of the aphis is the larva of the lady-bird. It is difficult to trace the origin of the popular custom which ensures protection to these insects. In France they are called Bêtes de la Vierge, or Vaches à Dieu, as if under the tutelary patronage of the Virgin herself. But they really deserve all the protection they receive; for while they leave our hops and valuable plants uninjured, they destroy the greatest enemy of these vegetables—the plant-louse. "If," says Kirby, "we could only discover a mode of increasing these insects at will, we might not only, as Dr. Darwin has suggested clear our hot houses of aphides by their means, but render our crops of hops much more certain than they now are." In 1827, the shore at Brighton, and all the watering places on the south coast, were literally covered with them, to the terror of the inhabitants; they being ignorant that these insects were emigrating after having cleared the neighbouring hop-grounds of the destructive aphis.

It furnishes a subject of serious consideration, as well as an argument for a special Providence, to know that the accurate Reaumur, and other naturalists, have observed, that when any kind of insect has increased inordinately, their natural enemies have increased in the same proportion, and thus preserved the balance.

ART. CCV.—*An Address delivered before the Albany County Horticultural Society, at its Anniversary Meeting, on Tuesday, September* 7th, 1830. By Dr. T. ROMEYN BECK, M. D.

Mr. President, and

Gentlemen of the Horticultural Society,

I have acceded to the request of your respectable committee, solely from a wish to aid with my poor endeavours the cause of this society. None can regret more than myself, that the judicial duties of my learned friend, [the Hon. A. Conkling, 1st Vice-President,] prevent him from performing the task now assigned to me; and I must, at this early period ask your most favourable construction of the brief and necessarily imperfect observations that I shall offer. What of mature life I have passed through, has mostly been in the retreats of the closet, and neither time nor opportunity has been afforded for more than an occasional acquaintance with the interesting subjects embraced within the purvey of this society. While, therefore, I may appreciate them as highly, and admire them as sincerely as those more conversant, you will pardon me if I display, it may be, the enthusiasm, but more probably, the ignorance of the novice.

The objects for which we are associated are far from holding an inferior rank among legitimate pursuits. The are intimately connected with the progress of civilization, and they minister a thousand ways to the comfort, the refinement and the happiness of the human race. They eye is charmed with the beauties of the vegetable world, and its rich productions; and the heart is delighted with the rapidly improving and increasing quantity of articles intended for the sustenance of man.

By a wise and impartial decree of the Almighty, every country appears to have received only a certain proportion of vegetable as well as mineral riches. The command went forth that man should cultivate and subdue the earth, and, by thus doing, he had, during successive ages, increased their value as well as their number. In nothing is this more striking than in the fruits which now constitute the chief ornaments of our gardens. As far as our information, drawn from the records of various nations, extends, they appear in early times to have been thinly scattered and imperfectly produced. The peach is deemed a native of Persia, the plum, the cherry, the apple and the pear, are traced to Armenia; the fig is derived from Syria, the apricot from Epirus, and the pomegranate from Africa. Northern Europe, including England, in the ages previous to the invasion of the Romans, only possessed wild fruits, such as rude and uncultivated nature gave it—the crab, the sloe, the hazel-nut and acorn. Even the olive, which now adorns Italy, and furnishes one of its staples, did not exist in that country until some ages of its history had elapsed. When Lucullus returned from his triumph over Mithridates, he brought with him as one of the trophies of victory, a cherry tree laden with fruit, and this product of the province of Pontus adorned his entry into Rome. Now trace the progress of civilization, and of extended intercourse between nations. In less than one hundred and twenty years thereafter, according to Pliny, other lands had introduced them, even as far as Britain, beyond the ocean. The empire of the Romans, says the historian of its Decline and Fall, filled the world. Beyond its frontiers, the anxious view of its slave could discover nothing except the ocean, inhospitable deserts, hostile tribes of barbarians, or dependent kings. If its despotism was thus overshadowing, if cruelty and rapacity marked its dominations, we are at least indebted to it for certain consequences dependent on its unrivalled magnitude. The arts, the knowledge, and the improvements of the capital, were diffused with an impartial and liberal hand over its subject dependencies, and the vegetable riches of one conquered country soon became domesticated in another.

When the parts of this mighty confederacy fell asunder from the attacks of its barbarian invaders, and numerous new sovereignties were formed, another power supplied the place of the ubiquity of universal domination—a power more benignant in its operation, doubly blessed in its progress, and happily more permanent in its effects. The diffusion of christianity, by its early missionaries, promoted the culture of the arts and sciences, as well as the mild pursuits of domestic life; and even in the middle ages, when war was the sole employment of the higher classes, and

rude unceasing labour that of their miserable dependants and slaves, the ecclesiastics not only kept alive and continued the knowledge of the ancient languages, but in their various retreats, are to be deemed the most efficient promoters of the science and practice of Horticulture. "Whoever," says an elegant writer, "has seen an old abbey, where for generations destruction only has been at work, must have almost invariably found it situated in one of the choisest spots, both as to soil and aspect; and if the hand of injudicious improvement has not swept it away, there is still the '*Abbey garden.*' Even though it has been wholly neglected, though its walls be in ruins, and its area produce but the rankest weeds—there are still the remains of the aged fruit trees—the venerable pears—the delicious little apples, and the luscious black cherries. The chesnuts and walnuts may have yielded to the axe, and the fig trees and vines died away; but sometimes the mulberry is left, and the strawberry and raspberry struggle among the ruins." "There is a moral lesson (he adds) in these memorials of the monastic ages. The monks, with all their faults, were men of peace and study, and these monuments show that they were improving the world, while the warriors were spending their lives to spoil it. In many parts of Italy and France, which had lain in desolation and ruin from the time of the Goths, the monks restored the whole surface to fertility; and in Scotland and Ireland, there probably would not have been a fruit tree till the sixteenth century, if it had not been for their peaceful labours."

It is not necessary to trace minutely the progress of Horticulture, subsequent to the period now noticed. A rapid survey will be sufficient. With the revival of letters and the invention of the art of printing, a new era opened upon Europe. New worlds were discovered, and the influence of commerce began to be every where felt. As the intercourse between nations became more frequent, an interchange of their productions necessarily followed. Northern Europe grew familiar with the riches of tropical countries, and the desire naturally followed of domesticating them on its own soil. Of all the nations in that part of the eastern continent, Holland doubtless deserves the first notice, as the pioneer in naturalizing exotic fruits and vegetables, and England followed with an equal, and in later days, a surpassing ardor. Science was made tributary to their efforts. A plant that lived only beneath the genial influence of a vertical sun was transported to a far northern latitude, to flourish in a temperature produced by artificial means.

The hot house thus became, in the hands of the wealthy merchants of Holland, and the nobility and gentry of England, an important instrument in promoting the diffusion of these interesting productions — Gradually it was noticed, and the discovery was no less fortunate, that it is remarkable, that many tropical fruits accommodate themselves to their adopted climate, and that they survived the changes of a northern winter. They were then propagated in a wider range, and in many instances, such has been their diffusion, that they are deemed native equally with the original productions of the soil. I may mention as illustrative of this, among esculents, the potatoe, a native of South America, among fruits, the pine apple, and among flowers, the China rose.

It is evident from these facts, that the passion for foreign productions, though formerly often ridiculed as a mere desire for the display of wealth, has yet proved of general benefit to all. But we must not graduate every thing to the mere standard of utility. The eye, too, deserves to be gratified with a view of the works of nature. The more we extend our acquaintance with its wonders, the more are our minds elevated by a contemplation of their variety and beauty. And where can these be seen more brilliantly than in the hot-house and conservatory?

Who loves a garden, loves a green house too,
Unconscious of a less propitious clime,
There blooms exotic beauty, warm and snug,
While the winds whistle and the snows descend,
The spiry myrtle with unwithering leaf,
Shines there and flourishes. The golden boast
Of Portugal and western India there,
The ruddier orange and the paler lime
Peep through their polished foliage at the storm,
And seem to smile at what they need not fear.
———Those Ausonia claims;
Levantine regions these; the Azores send
Their jessamine; her jessamine, remote
Caffraria—foreigners from many lands,
They form a social shade, as if convened
By magic summons of the Orphean lyre.

[COWPER.]

During the last thirty years a powerful impulse has been given to Horticulture, by the establishment of societies. Among the earliest and most distinguished of these, is the Horticultural society of London. It was founded in 1805, through the spirited exertions of Sir Joseph Banks, Mr. Knight and several other eminent naturalists. It embraces among its members much of the talent and wealth of Great Britain, and both have been liberally bestowed in promoting and fostering its interest. It has greatly extended the taste for gardening by collecting in its noble establishment at Chiswick the rare productions of every climate—by exciting competition among the intelligent and patriotic to excel in raising various fruits and vegetables, and above all, by numerous and well devised experiments, to increase their variety, as well as ameliorate their quality. It has sent out its scientific missionaries to every quarter of the globe. They have been with us and examined the products, both of the eastern and western portions of our continent.

Scotland was not slow in following so praiseworthy an example. Though that country is not blessed with so genial a climate, yet for many years it has furnished the most and the best practical gardeners to the British empire. And the cause of this is evident. The asperities of a northern temperature were to be combatted and overcome by greater skill and more patient industry. Rules, often to be only learnt by long experience, were to be acquired, for preserving and propagating plants which needed the kindliest care; and it is worthy of all commendation, as well as of repeated note, that these have succeeded in enabling that country to equal if not to excel, more southern ones in producing the choicest fruits, and the most delicate vegetables.

A venerable man of the medical profession, the late Dr. Duncan, is justly deemed the founder of the Caledonean Horticultural Society. They have not yet established a garden similar to that of their countrymen in England; but its want is in a measure compensated

by the numerous private establishments that abound in the vicinity of the capital, and by the munificence of many of the nobility. Not many years since, a committee of its members visited Holland and Flanders, to acquaint themselves with the peculiarities and excellencies of those countries in gardening, and thus to bestow on their native soil the benefits of their acquired knowledge.

In our own country, and in this state, the experience of great Britain has not been lost upon its citizens. Our climate, though variable and often rough, can yet boast of a benignant summer sun, and a delightful and often magnificent autumn. It is indeed such a climate and land, that promise every thing to the hand of industry—nothing to the sluggish and inattentive.—Added to this, such is the happy peculiarity of our situation, owing to the increased facility of intercourse, that a few days furnish us with the tropical productions of the southern states.

While it has been the effort of several spirited individuals in our vicinity, for a number of years, to increase the quantity and quality of our vegetable productions, they have often experienced the lassitude attendant on solitary and often unappreciated efforts. To obviate this, to excite emulation, to honour every laudable enterprise, to place in proper relief before a public always willing to bestow proper desert,—in fine, to promote the public good thro' individual enterprize, has been the object of the establishment of this society, and its compeers at New-York and Canandaigua.—Of the utility of our own we can only speak from the promises of its infancy; but those are fair, large, and decisive—illustrated by proofs that carry conviction. We have only to visit the gardens which in rapid succession are ornamenting all the borders of our city—to inquire into their productions—to ascertain how many have been introduced from foreign countries or the remote parts of our own—how many experiments have been made to improve what we already possessed, and then to ask, would this rapid increase—this zeal have been displayed, if the owner had supposed his own flowers were born to blush unseen, or his clustering fruit to hang unnoticed? Man in all states requires the support and kind countenance of his fellow man, and it is thus that institutions like our own, if conducted with a proper spirit, so rapidly effect their intended objects. We have again only to visit our markets and compare their teeming and varied treasure, with the confined and inferior products of former years. Is it not evident that not only the plenty, but the excellence of our vegetables and fruits is increased—and that by fostering this society, the public generally, the poor, as well as the rich, have been greatly benefitted?

I cannot conclude these remarks, without venturing to direct the attention of my auditors to a subject of interest, although it may be considered by some, as not of immediate consequence. I refer to the planting and propagation of such trees as are required in the arts and manufactures of our country. For many years it has been the business of our farmers to free the earth from the forests that covered it, and thus to prepare it for the purposes of agriculture. This, however, has often been done with a reckless hand; and in the immediate vicinity of our cities and large towns, the diminution has been felt in the increased price of wood, and the greater distance from which articles required for architectural purposes are obtained. Our numerous canals, opening new sources of supply, may render the want less manifest for a time; but, before long, a period must arrive, when the system now pursued will have an end. It is already noticed, with some alarm, that the live oak so needed for the navy of the nation, is becoming scarce, and that plantations of it must be nurtured for meeting future demands. In Europe, and particularly in Great Britain, the value of estates has been doubled within the life of man, by extensively planting trees required for building, and for their naval and mercantile marine. The scientific part of it is now well understood, and it certainly would be desirable if the practice could be somewhat introduced into the older settlements of this country. It might lead to greater interest in the public places of our cities and towns. Who that has visited the Battery in the city of New-York, and noticed the magnificent forest trees on it, some of them of southern origin, or viewed the venerable grove of sycamores, covering with their shades the academic retreats of Columbia college, has not desired that in the place of his residence there might be such a resort for his hours of relaxation, and such a play ground for his children. Travellers inform us, that in every bright sunny morning, the aged French emigrant, an exile from his country for 25 years, is to be seen enjoying the shelter of the beautiful gardens of Paris. With this he consoles himself, amidst the loss of property and the dispersion of his family circle. So it is throughout the world. The garden in its widest sense, with its fruits and flowers and trees, enters largely into the idea of country and of home.—If born among such an one its beauties will never be forgotten; as age advances, it will exercise a benignant influence upon his taste, and in the decline of life, its shadows will be his favourite retreat.

A neighbouring wood, born with himself he sees
And loves his old cotemporary trees.

I have said that the garden enters largely into our ideas of country and of home. And have we not reason for gratitude at every return of this and similar anniversaries, when we recur to the prosperous and happy condition of our own? Though our breezes be variable, though industry and labour be required, though, as in more favoured lands, the earth does not pour forth its rich treasures spontaneously, yet, we enjoy that which sweetens the hardest lot—the possession of freedom, with no alloy, except the apprehension that we will not appreciate it sufficiently high. With these incitements we need not envy, though we may admire, the productions of more genial skies. And in our succeeding festivities, let us not forget that delightful region, that lovely France, whose vine covered hills and gay vallies were immortalized by the poet at its first revolutionary struggle, and whose citizens, amidst the richest gifts of climate and of soil, have yet, like our ancestors, yearned after and found the liberty, which alone gives to the flower of fleeting life, its lustre and perfume.

ART. CCVI.—*Festival of the Albany Horticultural Society.*

We make some further extracts from the proceedings of this society at its late Anniversary. We would suggest the propriety of having the annual festivals of

the Societies in this section of country, at such different periods, that delegates may have an opportunity to attend. We consider these civilities to be of much importance, serving to inculcate a friendly spirit, and to promote the objects of horticultural societies.

Although it is out of our power to note all the fruits presented, or the names of the donors, yet we give the following memoranda, omitting a description of quality, as they were all remarkably fine.

Presented by Mr. Denniston; the Schuyler, red, German, Royal blue, Chancellor, Bancker, Imperial gage, Queen Claude and Elleanor plums, and a variety of large apples.

By E. C. Delavan; the Schuyler and yellow gage, prune, Denniston's yellow, egg, and magnum bonum plums, five pots of purple and white egg plants, peaches, sweet water and Isabella grapes, and Bergamot pears, and large cocoanut squash, new variety.

By A. Walsh, esq. of Lansingburgh; the singular vegetable production termed the *air plant*—1st, as growing after having been suspended from a tree the last three months; 2nd, the young plants growing from the old leaves; and 3d, the mature plant grown from the leaf. Also the cardoon, monthly cherries, and a bearing branch of Ord's keeper apple.

By J. Buel; Washington and Gallande peaches, Jefferson plum, Flushing and red gage, three other varieties of plums without names, cellery and melons.

By Mr. Churnside, from the garden of Stephen Van Rensselaer, sen.; the yellow, green, red and blue gages, and the egg, peach, blue pear and blue primordian plums, a variety of peaches, grapes, melons, the orange Bergamot pear, and red currants.

By J. T. Norton; nectarines, blue gage and magnum bonum plum, and sweet water grapes.

From Mrs. Catharine Van Schaick; a basket of prune plums.

By C. E. Dudley; branches loaded with filberts.

By J. F. Bacon; a variety of peaches, and yellow gage and egg plums.

By Judge Conkling; water melons, apple seeded and other varieties.

By D. B. Slingerland; the minature garden of fruit bearing vines and branches, (mentioned in the description of the fruit table,) a variety of peaches and apples, water-melons, Lima beans, Jackson plums, and a dish of double plums.

By G. Brinckerhoff; a basket of prune plums.

By Messrs. Cruikshank & Chapin; a dish of large seedling gage plums.

By Mr. Barney; a variety of peaches.

By N. R. Packard, raised at the alms house, of which he is superintendant; a quantity of melons, large purple egg plants, red, savoy, drum-head and batterse cabbage, tomatos, cellery, beets, turnips, &c.

By J. I. Godfrey; vegetable oysters and potatoes.

By J. Wilson; broccoli and egg plants.

By Thomas Dowling; Boncreton pears, and a variety of apples and musk-melons.

By R. M. Meigs; varieties of the peach, and musk melons.

By G. M' Pherson; varieties of the water melon, musk melon and peach.

TOASTS.

By Gov. Throop. *The members of the Albany Horticultural Society.* Applying science to the operations of the most agreeable, and one of the most useful branches of agriculture; their labors and example cannot fail to confer important benefits upon their country.

By the Rev. Dr. Lacey. *Horticulture.* Contributing alike to the dignity and happiness of human beings, is worthy of—as it is here receiving—the attention of our best men.

The President then read the following letters.

New-York, 27th August, 1830.

Jesse Buel, Esq.

Sir—I had the honour to receive the invitation of the Albany Horticultural Society, communicated in your friendly terms. As the committee of arrangements of the New-York Horticultural Society have selected the same day (7th Sept.,) I cannot have the pleasure personally to accept your kind invitation, but hope to nominate a delegate to represent this society at your anniversary.

The enclosed was prepared by our committee, which I now have the pleasure to forward, with my personal desire that the invitation will be accepted in a way most convenient to yourself.

I take the liberty to offer a sentiment for your anniversary.

The Albany Horticultural Society. She blossoms fair and produces abundantly; and like her elder sister in New-York, promises to improve the qualities and reduce the prices of her vegetables.

With sentiments of respect, I am yours,

JACOB LORILLARD, P. N. Y. H. S.

Brinley Place, Roxbury, Sept 1, 1830.

My Dear Sir,—Please to present my sincere thanks to the Albany Horticultural Society, for the kind invitation, which you have so obligingly transmitted, to participate in the festivities of its annual celebration. It would have afforded me great pleasure to have visited Albany, under such favorable auspices, and on such an interesting occasion; but, unfortunately, my engagements are such, that it is out of my power to do so.

Your letter was laid before the Massachusetts Horticultural Society, and I have been directed to assure you of the lively sensations of gratitude which are entertained for the distinguished attention extended towards its officers and members, by the request, that a delegate might be selected to represent the institution at your public dinner, on the 7th inst. Be assured that one of our officers will attend, if it is found practicable; but as our celebration is to be on the 10th, it is very doubtful.

Allow me to subjoin a toast, which I will thank you to offer in my name.

The State of New-York. Distinguished for its rapid advancement in commerce, manufactures, rural economy, and internal improvements, as for the intellectual attainments, enterprising spirit, and elevated patriotism of its citizens.

With the highest respect,
And sincere esteem,
I tender friendly salutations,

H. A. S. DEARBORN.

J. Buel, Esq. Pres't. Albany Ht. Society.

By Hon. C. C. Cambreleng, of New-York. *The President of the Albany Horticultural Society.* No one who has seen him, surrounded by his fruits and flowers, can doubt his title to the station he occupies here.

From Charles Oakley, Esq. one of the Vice Presi-

dents of the N. Y. Horticultural Society. *Horticultural Societies of the World.* They deserve the patronage of every enlightened mind. May they receive it, and prosper abundantly.

By Theodore Sedgwick, Esq. of Berkshire, Mass. *France!* beautiful France! The land of the Vine! May she enjoy the privilege of electing her own Monarch.

By Gen. Van Cortland, of West Chester. *The Orator of the day.*

By Alexander Walsh, Esq. of Lansingburgh. *The Genius of Horticulture.* To increase her bountiful stores, she traverses the universe selecting to propagate. A valuable, healthy employment, leading the mind to pleasing and elevated thoughts, "through nature, up to nature's God."

By Hon. J. Townsend, mayor of the city. *The Horticulturist.*

By C. Lansing, Jr. Esq. of Lansingburgh. *The Albany Horticultural Society.* By your choice fruits and flowers are you known. Success attend your laudable exertions.

By D. B. Slingerland, Treasurer of the Society.—May the citizens of Albany support and encourage its Horticultural Society, according to its merits. It asks no more.

By J. Deniston, Esq. *The acting Governor of this State.* Esteemed for his private virtues—respected as a citizen, a magistrate, and particularly as a practical cultivator of the soil.

By H. Bartow, Esq. *Albany Horticultural Society.* Equally the friends of good taste and a good stomach; fiting us alike for philanthropists and—aldermen.

By James Porter, Esq. *The Ladies of Albany.*—May our next anniversary dinner be ornamented and enlivened by their presence.

By Dr. H. Greene. *Horticulture and Agriculture.* First taught from Heaven, and practised in Eden—now, as then, the indispensable pursuit of man—the never failing supply of all his wants, and the nursing mother of all the useful arts.

By Mr. J. C. Draper. *The Albany Horticultural Society.* May the principles which actuate its members, take deep root and expand over our fertile and happy land.

By Mr. D. B. Slingerland. *The Ladies of the City of Albany*—who graced our exhibition with their presence. Their smiles spoke their approbation—their approbation encourages us to persevere.

[For the New York Farmer.]

ART. CCVII.—*Retrospect of the past year, from the diary of a Farmer in Montgomery county.*

March, 1830.—The preceeding winter has been highly favorable to our husbandmen. The weather has been mild and pleasant for the season, without any of those distressing, drifting snows, which we have so often experienced. The Mercury was seldom below Zero. We have had just snow enough to enable us to bring home our fire wood, materials for fencing, building, &c. Winter has retired without an expiring struggle. Even at the Equinox we have had no violent wind, or storms of any kind. Our cattle and sheep are in fine heart, fodder is abundant, and hay can be bought for $5 and $6 a ton.

April.—Commences unusually warm and serene. Before the middle of this month, our gardens are planted, and our fields sown with barley and oats in the very best style, for never did land work better. All things seem to presage a spring uncommonly early. The Mercury for several days was above 80 in the shade, and on the 30th above 86. Plum and Cherry trees are in full bloom.

May had scarcely completed her flowery drapery, when the weather was greatly changed. A Northwestern breeze prevailed for many days, and brought back a remnant of the departed winter. Vegetation now advanced with tardy steps, and our cattle found sustenance only in the barn yard. After the 20th of this month, for six nights in succession, there was more or less frost, and fruit of every kind suffered greatly. Our gardens, in a particular manner, felt its destroying influence. The Grape vines which had advanced more than two feet were killed to the ground; early potatoes, beans &c, entirely perished.

June was also unusually cold. At the Solstice, we had much rain, for three days in succession, our streams were overflowed, and our fields deluged. Wheat and Rye, Barley and Oats, however, look well, Indian corn is small indeed; and as might be expected, in many places turns yellow.

July assumed a more pleasant aspect, and all the vegetable world appeared to rejoice. Our pastures and meadows are luxuriant, and crops of every kind rapidly advancing; even Indian corn begins to revive our hopes, and cover the ground with waving foliage. On the 21st the Thermometer in the shade stood at 96, and in the sun at 108. Our hay, wheat, and barley harvest have commenced, and are unusually heavy.

August,—is equally favorable to the wishes of the farmer, days and nights are warm; Indian corn never grew faster, and the atmosphere was remarkably serene. Harvest is finished with the greatest facility, in the best manner, and all well secured. Wheat and rye are good; barley, our staple market crop, was never better. Our gardens are beautiful, and daily present their bounties.

September,—is also pleasant, no great storms of wind or rain, no frost to destroy vegetation until after the Equinox. Indian corn and buckwheat have generally ripened, and will average at least a medium crop. Pasture is fine and our flocks are rejoicing.

October comes loaded with blessings; Indian corn, buckwheat, potatoes, &c., have exceeded our expectations; even our orchards yield sufficient for domestic use, and our barley has been carried to market, upon roads unusually good. Our Apiaries are much better filled, than for many years past. Mrs. Griffith's bee-hive is truly a great improvement, and promises to do away entirely, all depredations of the moth.

November finds us well prepared for the approaching winter. Fall ploughing is done, and well done. Our barns are full, our flocks rich and thriving, our country healthy, and our hearts overflowing with gratitude to the Giver of these, and every other blessing.

L. R.

Remarks.—We are glad to find that L. R. has resumed his pen. We like his article very much, and recommend it for imitation to our correspondents in other sections of the country.

ART. CCVIII.—*Miscellaneous Items, prepared from the October number of the London Gardener's Magazine.* By the EDITOR.

Sprigs of Orange Trees in blossom, and wreaths of the same, are sold in the markets at Paris throughout the year (the trees being forced in the winter season,) to be worn at marriages; the bride being crowned with a wreath, and the bouquets being distributed amongst her attendants. In the evening the wreath is divided into small pieces, and eagerly sought for by the young female friends of the bride, who believe it to possess the same qualities as are attributed to pieces of the bride-cake in England. We have seen sprigs of orange trees worn at marriages in this country; and we rejoice to observe the striking manner in which the customs of two nations, so formed to be united as England and France, are beginning to amalgamate.

J. L. Cobham. Sept. 15.

The average duration of human life in France has been greatly prolonged since the revolution, which is mainly attributed to a large portion of the people being enabled, by the more equal distribution of the land, to live in a state of greater comfort than formerly.

A simple and effectual method of killing Wasps.—My plan is this:—When a wasps' nest is found, I take about half a pint of tar in a pitch-ladle, and run part of it into the hole where the nest is; put the remainder of the tar round about the mouth of the hole, and the job is done. All the wasps that are in the nest are caught in their attempt to come out, and those that are out are caught in their attempt to go in: so that none escape. If the nest should be in a place where the tar will soon get dry, it may, perhaps, be better to put a little more tar round the hole the following day; as, in general, there are a great many of the wasps which are out all night, and when the tar is dry it will not catch them.

It is not necessary to dig out the nest; and the tar may be applied at any time of the day, even when the wasps are most busy.

A cheap and easy method of raising Celery.—After the potatoes are fully hoed up, it will be found that the furrows are an excellent ready made trench for the celery; then take a small spade, and cover in a good dose of strong manure betwixt every alternate row of the potatoes, every furrow would be too close, and then plant in the usual manner. In digging the potatoes, take up every alternate row first, which will give more air to the celery.

The advantages of the above plan are as follows:—1st, no ground is lost by the celery crop; 2d no labour is required in making the trench; 3d, the celery plants really thrive better at first by being partly shaded by the potatoes; and 4th, the celery can be partly earthed up when digging the potatoes, without any additional labour.

I may also observe that every economical gardener may also take a crop of early cabbage from the other furrows, as every alternate furrow is only occupied with the celery; the other furrows may be planted with spring-sown cabbage plants, which will be quite ready for cutting before the earth is wanted for the celery. I remark further, that celery plants raised in the open air are by far the best, and just as easily raised as green kail or cabbage, notwithstanding the mystifications of some of the professional gardeners.

Frightening and enticing Animals.—An interesting encounter with a white bear is given, and the important information added, from "subsequent experience," that the best mode for a botanist to get rid of bears, when attacked by them, is to rattle his vasculum, or specimen box, when they immediately decamp. This easy way of driving off so formidable an enemy gives rise to a thousand reflections. How many individuals may have perished from ignorance of this simple fact! The first idea of opposing brutal force is the employment of brutal force; the second, that of stratagem; the last step is the employment of scientific knowledge, or the force of the mind. Most wild animals are frightened by fire; but may there not be some more simple means, and means always at hand for effecting the same object? Cannot the schoolmaster be set to work among the brute creation?—Every animal may have some speciific action, sound, or smell, which will frighten him! May not a man in Africa one day frighten away the hungry lion by some means as simple as Mr. Drummond employed against the bear? If success be attained with the lion, then, by analogy, it will extend to the tiger, and other animals belonging to the same group. In describing all animals, the mode of frightening, and of enticing them, ought to be given as far as known; and all zoologists ought to pay particular attention to this branch of their subject.

Ledebour's Illustrations of Russian Plants is in an advanced state, and will be published at Munich with 500 folio plates. The figures will chiefly represent new plants discovered on the Altaic mountains and their environs.

Market Gardens in Holland.—Fine market gardens are very common here, as well as large pleasure-grounds, or parks, though the Dutch manner of laying out grounds is very inferior. The whole park is usually planted so thick, that one actually walks in the dark under the trees when the sun shines; and it is only from the mansion that a fine view can be obtained. Stagnant ditches cross each other in all directions; but this taste is too well known, and very justly too little adopted, in other countries to require further notice.

Horticultural science, about Rotterdam, Amsterdam, and the whole province of Holland, is kept up merely by a few florists in Haarlem, and some botanists in Leyden, and perhaps by a few others; but the love of gardening, in private gentlemen, has so declined, that the florists could not exist without their trade to foreign countries. It is surprising that as yet none of the numerous cultivators of bulbs has published a work; and even few foreign books on gardening are known among them; because they are of no use for the culture of bulbs.

The botanic garden in Leyden has, as I remember when I was there last year, a good collection of hothouse plants, and others; but it is much inferior to Kew Gardens.

Fruit-trees in Churchyards.—N. Phillipe Bosquet, who died at Amsterdam on the 8th of January last, bequeathed two thousand florins to the Benevolent Society of the Northern Provinces of the Netherlands, on the condition that "two fruit trees of full growth shall be planted over his grave, the fruit to be publicly sold by auction every year, in order to prove that the receptacles of the dead may be rendered useful and

beneficial to the living." The directions of the testator, say the papers, have been complied with.

Scotsman, May 20, 1829.

The most beautiful and picturesque road in Europe, not excepting even the beauties of the Rhine, is the tour from Namur to Liege along the banks of the Meuse. Half way stands the town of Huy, with its lofty castle and recently planted vineyards, already yielding good wine. This is a singular instance of the establishment of vineyards where no vines were ever before cultivated.—*A Spectator in the Netherlands, in the Derbyshire Courier, of Nov.* 28, 1829.

Mangold Wurzel, erroneously spelled Mangel Wurtzel. The Report of the Committee of the Doncaster Agricultural association on the advantages of Mangold Wurzel as a Fallow Crop, thus speaks:

"The advantages of mangold wurzel are these:—It is more sure to plant, being very little liable to the fly or grub; it will produce more weight; it is off the land earlier; it is useful as a change of fallow crop, when the land is tired of turnips; it will grow on land where turnips cannot be raised; it is better spring food. On the other hand in favour of Sweedish turnips, it may be said, that the weeding and singling out are less expensive; there is rather more time for fallowing in the spring; the succeeding crop is better than after mangold wurzel. Perhaps cattle feed best on Sweedish turnips when they are used alone.—It must, however, be remarked, that these last two evidences in favour of Sweedish turnips is not fully proved, and only partially supported. In conclusion, perhaps two observations may be of use. First, that the very early season at which mangold wurtzel should be sown renders it highly expedient that the land should be made as clean as possible in the autumn, so that a few days in the spring may be sufficient to get it in a proper state for the reception of the seed. Secondly, that wet seasons do not suit mangold wurtzel so well as dry: and, consequently, for the last two years, the Sweedish turnips have been the more valuable crop of the two."

Sweet and sour Apples.—Mr. Bradley mentions an apple which was sweet and boiled soft on one side, and sour and boiled hard on the other, (*Treatise on Gardening*) and the late John Jay, of New York, notices another sweet on one side and sour on the other.—(*Comm. Board Agric.* vol. i. p. 362.) I can relate a third case of a similar nature. The late Levi Hollingsworth, merchant, who resided for more than sixty years in Philadelphia, and was a man of the highest integrity, informed me, several years since, that when he was a boy, living at Elkton in Maryland, there was a full grown apple tree, the fruit of which was sweet on one side and sour on the other; on the same limb there grew apples quite insipid, others sweet, and others sour. He mentioned the fact as of his own knowledge to a club of literary gentlemen, who met at a public house once a week to discuss useful subjects, in the year 1762, in Philadelphia; but the doctrine of the marriage of plants was not familiar to them, and the fact was doubted. This so mortified him, that he went down to Elkton, in company with the late Mr. Samuel Nicholas, who was a respectable citizen, and brought away several of the apples to the club. Mr. Hollingsworth assured me that the tree had never been grafted.—J. M. *Philadelphia, Sept.* 7, 1829.

Apples and Pears on the same tree.—"Mr. John Gage of Upton Union, a few years ago, grafted a pear upon an apple scion in his garden. When it grew up so as to begin to bear, it bore for two years very excellent pears. The third and fourth years its leaves, which formerly were those of a pear tree, changed, by degrees, to those of an apple tree. The fifth year, and ever since it has borne excellent apples. This has been related to me by at least fifty of the most respectable men on the spot, who personally knew it to be true." (*Job Johnson*, in *Long Island Patriot.*) J. M. *Philadelphia, Sept.* 7. 1829. Unquestionably an error in the observer; the scion in all probability never united properly, and a shoot from the stock was mistaken for it.

Mr. Scott's Garden at Hobart Town, Australia.—Pepper Tree.—No resident at Hobart town, either passing or permanent, should omit visiting Mr. Scott, the industrious and well informed seedsman of Brisbane-street. In his garden there will be found a most interesting collection of almost all the indigenous plants of our island, and many others of foreign origin. A visit to Mr. Scott will be considered a very useful disposition of a vacant hour. Mr. Scott has now a great collection of Mount Wellington plants, dried and preserved, and has succeeded in collecting a quantity of the bark from the pepper tree; which some of the gentlemen of the faculty so highly approve, that we understand they intend to analyze it, in order to discover its virtue. The pepper shrub of this island grows in a close thicket, to the height of from 6 to 10 feet, when in blossom, in the spring months of November and December. The farina of the flower is so pungent, especially if shaken about by the feet of horses or cattle, that it is necessary to hold a handkerchief to the nose, in order to avoid continually sneezing. It has a pretty appearance with its red bark and dark green leaves. The whole of this country is also interspersed with that magnificent shrub called the warrataw, or tulip tree, and its beautiful scarlet flowers.—*Colonial Times, Dec.* 11, 1829.

Pleasure derived from cultivating Flowers and Fruits.—"Of all recreations, the cultivation of fruits and flowers is the one which ought to be the most encouraged. It is the most congenial to civilization, and conduces very materially to health; attaches men to their homes, consequently, in many instances, prevents a life of dissipation; inclines the mind to serious thought and reflection; and teaches us to look through nature up to nature's God.

"Every rank of people, from the humble cottager with his favourite auriculas and polyanthuses, to the lady of fashion with her more tender exotics, equally enjoys flowers as a gratification, and nothing more conspicuously bespeaks the good taste of the possessor than a well cultivated garden; and it may be generally remarked, that when we see a neat cottage-border well stocked with plants, the inhabitant is respectable and possesses domestic comfort; whilst, on the contrary, a neglected garden but too frequently marks the indolence and bespeaks the unhappy state of the owner. But what must be the satisfaction, as well as essential profit, which the botanist derives from a closer examination of these beauties of nature!—They behold them as the wonderful works of the Creator, and are convinced that vegetation could not possibly be a mere matter of chance, but must be effected

by the all-creating wisdom of a beneficent Being.—The poets are never more fortunate in their illustrations than when they sing the beauties and virtues of these splendid productions; nor does the artist derive less satisfaction in delineating their delicate and lovely forms with the pencil. Indeed, of all luxurious indulgences, that of the cultivation of flowers is the most innocent, and (except our terrestrial angels, ever bright and fair) they are of all embellishments the most beautiful; therefore, we cannot for a moment doubt that the Stockport Floral and Horticultural Society will meet with such fostering aid, as to place it foremost in the rank of of its competitors."—*Stockport Advertiser, March*, 5.

Cottage Gardens.—I have long noticed that the labourers or mechanics who are attached to their gardens are generally sober and industrious. Every man must have his hobby, and a garden is the best hobby a poor man can have. Thirty years ago, when a Lancashire weaver could live by his honest labour, the neighborhood of Eccles and Barton, and indeed the entire vicinity of Manchester were celebrated for neat gardens and clean houses, in the occupation of the above class of mechanics. It was, indeed, a most delightful treat to visit the tulip beds, the gooseberry gardens, or the auricula and polyanthus sheds of some of these intelligent and ingenious men. Of late years many have turned their attention to the cultivation of apple-trees; and, wretched as the situation of the whole of this class of useful men *now* is, there is still a marked difference in the circumstances and appearance of those who love their gardens. But some there are who do love them, without being able to possess them; many houses being now built in this, as well as other districts without a garden. This is wretched policy. I find among the few cottage tenants I have here, those with a garden pay the most and the best rent, and seem to live in the greatest comfort. I am glad to find you are going to publish a *Manual of Cottage Gardening*, with the model of a cottage, at the moderate price of 1*s.* 6*d.* I shall direct my booksellers, Messrs Longman & Co., to send me a few copies when published, and I have no doubt of its being perfectly adapted to insure the end designed, improvement in cottage building. On some future occasion I will, if not intruding too much on your pages, present you with a description of several cottages in the village of Hadnal, near Shrewsbury, with remarks on the advantages of a plot of land being attached to the dwellings of the labouring classes. I am, sir, &c.—*Charles Hulbert.*

Large Cucumber.—A cucumber (the Bloor's White Spine) was cut on the 8th of June in the garden of W. Hardman, Esq., of Chamber Hall, near Bury, of the following dimensions:—Length 26 in., girth 11 in., weight 5 lbs. 8¾ oz. It did not appear overgrown, but in a proper state for the table.—*Morn. Chronicle, June* 23.

Promenade, &c., in the Caledonian Horticultural Society's Experimental Garden, at Inverleith, July 10. The garden is about ten English acres in extent, and commands from every part a superb view of the city. It is divided into compartments suited to the different kinds of plants raised in it; the chief of these apartments being the aboretum, the orchard, the nursery, the hot-houses and stoves, and the kitchen garden.—The aboretum is formed of the numerous species and varieties of trees and shrubs, and extends round nearly three sides of the garden, besides intersecting it in the form of two raised belts. The orchard contains upwards of 600 sorts of apples, collected with great care, and at considerable expense, and many new seedling varieties. The pears amount to 350 sorts, the plums to 100 sorts, the cherries to 80 sorts, and the filberts to about 10 sorts. Of gooseberries there are 350 varieties; and the distinct kinds of strawberries are about 100. The nursery is filled with fruit and forest trees and shrubs, in various stages of growth, intended chiefly for distribution among members. The hot-house establishment is not yet complete, but the collection of pine-apples amounts to about 20 sorts, and that of grape vines to about 100 sorts. The culinarium, or kitchen-garden department, is richly stocked with rare culinary plants and herbs. The whole garden is under the management of Mr. Barnet, and never did we see a place of the kind in better order. Not a weed was to be seen; and, still more marvellous to be told, not a bush appeared deranged, nor a bed furrowed by the deluges which had poured down daily for a month before from the weeping skies. The turf walks were shaven so closely, that they seemed to the eye, and felt to the feet like a carpet of velvet.

In the centre of the garden a large tent was erected, supported on pillars gaily festooned with evergreens and flowers. Under this awning two tables were placed, capable of accommodating about 500 people.—The tables were profusely covered with all the fruits of the season, interspersed with confections, and beside each cover a nosegay was invitingly deposited. At each end of the tent was an elevated platform, supporting a variety of magnificent exotic plants, the exhibition of which was one of the principal features of the entertainment. The collection was as numerous as many of the specimens were splendid.—*Edinburgh Observer.*

Rural Happiness.—C——— Cottage, near Glasgow, Oct. 6. 1829.—Sir, * * * * We are, thanks to good food, abundant exercise, and keen appetites, in good health and spirits, and we continue to like our little retreat here as well as when we first came to it two years ago; for, although the effect of novelty is gone, we have always some thing in progress to keep up an interest. Indeed, my flower-garden is an unceasing source of enjoyment, as well as employment to me. I remember, before I left London, wishing I could manage to spend my days in my garden. You hinted, rationally enough, a doubt whether in that event the interest which I then felt and anticipated would not leave me. Now I can say, after a trial of three years, it has not; and I have no fears that it ever will. The beauty of gardening is, that independently of present gratification, there is always something to do, something to project, and something to look forward to, to keep up a sufficient degree of excitement, without too much anxiety. I wish you were here to see what a pretty place I have, and how busy I am; never, when the weather enables me to be out of doors, without a rake or a trowel in my hand, and happier, I guess, than George the Fourth in his gorgeous palace at Windsor. I fear, however, with all my zeal for this art, I have not much talent for making discoveries or observations.

Mrs. W. had a present made her of a beautiful pet

goldfinch, which, after moulting, two years ago, became altogether of a dingy black colour, not a red, or a yellow, or a white feather to be seen; and so it continued for a twelvemonth. Reflecting on the cause of this metamorphis, I could think of no peculiarity in the habits of the bird, except that it lived almost entirely on hemp seed; and, to try if this had any effect in changing his colour, he was, before and about the time of moulting last year, made to eat a portion of canary seed (which he would not taste if he could help it;) and in process of time he was furnished with a beautiful new suit of the original colours, It is now moulting again, and kept upon a mixed diet. I would have fed him on hemp seed again, by way of experiment, but was afraid of injuring his health. Do you think that the sort of food he eats can effect the colour of his feathers? And, if so, would not you think that the same cause might produce a somewhat similar effect upon the colour of the human species? By the by, goldfinches, which used to be plentiful enough hereabout, are scarcely to be seen, whilst I understand there are still plenty of them farther north.

A. W.

Setting the Tokay Grape.—I have for the last seven years practiced the following method of setting the Tokay Grape with the most perfect success;—Before the vines come into flower, I keep them in a temperature of from 70° to 75°; and as I see the first opening of the flower, I gradually lower the temperature to 60° or 65°, and find that they set freely, and as well as the Hamburgh, and other free set-setting kinds.

ART. CCIX.—*Fruit, Ornamental and Medicinal Plants, prepared from the October number of the London Gardener's Magazine.* By the EDITOR.

The Elton Seedling Strawberry, raised by Mr. Knight, and found to be a variety of the first class in point of excellence, "It is not too much to say, that it stands upon a level with the celebrated Keen's seedling. It is a healthy, hardy sort; it bears most profusely; the fruit is very large and handsome; it ripens so late as to furnish a supply of pine strawberries, to which class it belongs, long after all the other pine-like sorts are over, and, finally, it possesses the great merit of packing well, and of being particularly fit for preserving, a quality of which very few strawberries can be said to be possessed. All the strawberry growers who have seen it have been so much struck with it, that there can be no doubt it will soon be among the most common fruits in he market.—It comes in after the old pine, Downton and Keen's seedling: it is larger, and a much more abundant bearer than either of the former; and, like the latter, keeps ripening its berries in long succession."

Large Strawberry.—A Wilmot's Superb Strawberry was gathered at Belvoir Park, near Belfast, in the first week of July, which measured six inches in circumference, and weighed a full ounce,—J. F. *August*, 1830.

Terminalia Catappa; Combretaceæ. A tree of India, bearing a drupe, containing a nut, the kernel of which resembles that of an almond or filbert in flavour, and yields an oil equal to that of the olive. The fruit is abundantly eaten in India.

Justicia guttata; Acanthaceæ. A tender stove perennial, flowering in August. and increasing freely by cuttings. Presented by the East India Company to the Horticultural Society. It is a native of the Pundua Mountains. "The marking of the corolla with deep blood-red spots, upon a greenish ground, is exceedingly pretty: when closely examined, it will be found to arise from the presence of a deep crimson colouring matter, filling here and there the cavities of the cellular tissue of the parenchyma, and not existing in that part which forms the ground colour. When will natural philosophy tell us why contiguous spaces on a plane surface, the functions and anatomical structure of which are uniform, vary thus in the matter they secrete?"

Tillandsia stricta; Bromeliaceæ. From Buenos Ayres and Brazil, to Peter Kendall, Esq., a zealous cultivator of curious hot-house plants, who presented it to the Horticultural Society. "This is among the most beautiful of its tribe, and one that is easily cultivated. Mr. Kendall finds it succeed remarkably well with the following treatment:—

In June he takes it out of the stove and suspends it from a wall in the open air, where he leaves it without water, attention or protection, till the succeeding October; thus creating a sort of artificial winter.—When the time for placing it again in the stove arrives, it is found withered, discoloured, and, in appearance, half dead: as soon, however, as it is again submitted to heat and moisture, it recovers rapidly, commences a new and vigorous growth, and in the course of a few weeks loses all traces of its previous sufferings, assuming a rich healthy vegetation. After throwing out suckers from each side, it shoots up its spikes of bright blue flowers, which begin to open in March, and endure till the end of April: when the period for a cessation of growth draws near, its parts harden, its flowers fall away, and by June it is ready to undergo the same treatment as before. It is no doubt desirable to create an artificial winter, or cold season for all tropical plants, if it be possible, but this is generally impracticable; and although Mr. Kendall's management succeeds with this, and two or three similar plants from the same part of the southern hemisphere, it by no means follows than it can be applied generally; on the contrary, we know, from experience, that Brazilian and West Indian epiphytes of the orchis tribe are destroyed by it."

Ribes sanguineum; Grossuladceæ. The district of the Columbia River, on the north-west coast of America, abounds with currants, remarkable for the great beauty of their flowers. One of these is R. aureum. The present subject "is inferior in beauty to no plant in cultivation. It is as hardy as the common currants of the gardens, and bears a vast profusion of bunches of the most lovely purplish-red flowers, during the end of April and beginning of May, remaining in perfection full three weeks." Readily increased by cuttings, either of the new or old wood. Prefers a dry soil, but not peaty, as it is apt to die off in swampy places. "This species was sent by Mr. Douglas to the Horticultural Society; and of such importance do we consider it to the embellishment of our gardens, that if

the expense incurred by the Horticultural Society, in Mr. Douglas's voyage had been attended with no other result than the introduction of this species, there would have been no ground for dissatisfaction. It is not the number of objects that a public body or an individual accomplishes that creates a claim to public gratitude, so much as their utility; and, in this view, the gentleman who brought the first live plant of the now common China rose to England deserves his country's gratitude in a greater degree than all the collectors who have sent plants to Kew for the last twenty years. But if we consider that it is not *R.* sanguineum alone that the Horticultural Society has introduced through the same active traveller, but that the gigantic pines of North-west America, one of which yields timber superior to the finest larch; Acer macrophyllum, the wood of which is as much better than our sycamore as the species is superior in the beauty and amplitude of its foliage: Gaultheria *Shallon*, an evergreen shrub of great merit; have all been secured to this country, and distributed in every direction,—to say nothing of the beautiful lupines, pentstemons, berberries, œnotheras, and other plants of less moment;—when all this, we say, is considered, it is not too much to assert that this result alone has justified all the expenditure of the Society's garden from the commencement, and has stamped it with a character of great national utility, which nothing but future mismanagement can shake."

This species was originally discovered in 1787, by Archibald Menzies, Esq. during his first voyage round the world; and again, in his second voyage with Van Couver, in 1792. Lime, or lime rubbish, mixed with the soil in which it grows, adds to the profusion and depth of tint of the blossoms.

Agaricus bulbosus.—One of the poisonous native agarics, abounding in woods in the autumnal months. "Poisonous fungi do not in general manifest their action till six or eight hours after they are eaten, and twelve or sixteen occasionally elapse. .... Although the fungi have generally passed the stomach prior to the manifestation of alarming symptoms, it will be right to excite vomiting as speedily as possible, by a solution of sulphate of zinc or copper; evacuations from the bowels should be immediately produced by stimulating purgative cylinders; and as soon as the stomach becomes settled, the intestines should be thoroughly emptied by means of castor or croton oil; perhaps a large dose of spirits of turpentine would be better than either."

Amanita muscaria is used by the inhabitants of the north-eastern part of Asia "in the same manner as ardent spirits or wine, to promote intoxication. These fungi are collected in the hottest months, and hung up in the air to dry; some dry of themselves on the ground, and are said to be far more narcotic than those artificially preserved. Small, deep coloured specimens, thickly covered with warts, are also said to be more powerful than those of a larger size and paler colour.

"The usual mode of taking this fungus, is to roll it up like a bolus, and swallow it without chewing, which the Kamtschadales say would disorder the stomach. It is sometimes eaten fresh in soups and sauces, and then loses much of its intoxicating property. When steeped in the juice of the berries of the Vaccinium uliginosum, its effects are those of strong wine. One large, or two small fungi, is a common dose to produce a pleasant intoxication for a whole day, particularly if water be drank after it, which augments the narcotic principle. The desired effect comes on, one or two hours after taking the fungus. Giddiness and drunkenness result from the fungus, in the same manner as from wine or spirits. Cheerful emotions of the mind are first produced; involuntary words and actions follow; and, sometimes at least, an entire loss of consciousness. It renders some remarkably active, and proves highly stimulant to muscular exertion; with too large a dose, violent spasmodic effects are produced.

"So very exciting to the nervous system, in some individuals, is this fungus, that the effects are often very ludicrous. If a person under its influence wishes to step over a straw, or small stick, he takes a stride or a jump sufficient to clear the trunk of a tree; a talkative person cannot keep secrets or silence; and one fond of music is perpetually singing.

"The most singular effect of the Amanita is the influence it possesses over the urine. It is said that, from time immemorial the inhabitants have known that the fungus imparts an intoxicating quality to that secretion, which continues for a considerable time after taking it. For instance, a man moderately intoxicated to-day, will by the next morning have slept himself sober; but (as is the custom) by taking a tea-cup of his urine, he is more powerfully intoxicated than he was the preceding day by the fungus. The intoxicating property of the fungus is capable of being propagated; for every one who partakes of it has his urine similarly effected. Thus, with a very few amanitas, a party of drunkards may keep up the debauch for a week. Dr. Langsdorf mentions, that, by means of the second person taking the urine of the first, and the third that of the second, and so on, the intoxication may be propagated through five individuals."

[For the New-York Farmer.]

ART. CCX.—*Description of Pears, from Prince's Pomological Magazine, now in press.*

HOLLAND BERGAMOT. PR. CAT. FOR. COXE.

Bergamotte de Hollande. }
Bergamotte de Alencon. } Roz. Duh. Mil.
Amoselle. Duh. syn. Mil.
Lord Cheney's.

This is a very beautiful fruit. It is remarked by the authors of the New Duhamel, that all those which they had particularly noticed were of turbinate form, with an irregular surface raised here and there by slight projections, and that they measured three inches and three lines in height, by three inches and one line at the greatest diameter. The eye was situated in a wide depression, the edges of which were rather even, or presented some very trivial inequalities. The stem was large, two inches long, the skin wholly a light green, interspersed by numerous grayish specks, and at maturity attaining a pale yellow hue; the flesh, rather firm, half breaking, and abounding in pleasant juice, of considerable flavour; the seeds were brown, and somewhat protuberant, and the axis of the fruit in the centre of cells was hollow. This fruit begins to ripen in February, and may be kept till June. It appears subject to vary in its shape; for in the first edition of Duhamel it is described and figured of an al-

most globular form, rather less in height than in breadth, and measuring three inches in diameter, by two inches nine lines in height. This variety is excellent, when cooked or made into composts. The tree is vigorous, and may be ingrafted on both pear and quince. Forsyth mentions this as a synonyme of the Autumn Bergamot, cultivated in England, and of the Bergamotte d'automne of Duhamel, which are themselves two different fruits; this circumstance throws doubt on the matter altogether. The Pomological Magazine, on the contrary, does not quote this as a synonyme of the English Autumn Bergamote, and it is therefore most probably distinct.

Swiss Bergamot. Pr. cat. Mil. For.

Bergamotte Suisse. Quin. Roz. Duh. Mil. Pr. cat.
Bergamotte rayée.
Suisse, or Striped Bergamot. Evel.

This pear is twenty-eight lines in height, and twenty-seven in diameter. Its form is turbinate next the stem, which is from six to twelve lines in length, and inserted in a very small cavity, and sometimes in the centre of a flat space. The skin is smooth, striped with green and yellow, and on the sunny side acquires a slight tint of red, which is much more apparent upon the yellow stripes than on the green ones. The flesh is melting, sweet, and replete with juice, especially when the fruit is not ripened on the tree. The seeds are light brown, well matured, and terminate by a long point, and the fruit ripens in October. The tree succeeds equally well, grafted either on the pear or the quince. It is quite productive, but not partial to a very hot situation.

Gansel's Bergamot. Pr. Cat. Pom. Mag. For.

Brocas Bergamot, of various publications.
Ives Bergamot.
Bon rouge.

The Brocas Bergamot is now supposed to be synonymous with this variety, which is thus described in the Pomological Magazine:

"The wood is weak and flexuose, like that of the Brown Beurré, but is covered with a kind of mealiness, as are also the leaves, by which it is particularly distinguished from all the Beurrés and Chamontelles. The leaves are shining, flat, and rather mealy; the fruit, ovate, very much flattened at the crown, usually seven and a half or eight inches round, of a very regular figure, quite destitute of angles: skin, dull brown like that of the Brown Beurré, a little marked with dashes of deeper russet; flesh, white, melting, very sweet, rich and high flavoured; core, very small. Among the native English autumnal pears, this perhaps holds the highest rank, whether we consider its beauty, its excellence, or its prolific nature. It was raised by a Lieut. General Gansel, from seed of the Autumn Bergamot, about the middle of the last century. Sometimes it attains a very large size, having occasionally been seen almost a foot in circumference."

It does not bear well in England as a standard, but affords a tolerably certain crop when trained in an espalier form, and on the quince stock. It comes into eating here in October, and continues in perfection about a month.

The growth of this tree when young is quite slow, and extremely irregular, insomuch that it is very difficult to give it an erect and handsome form. I should be much more inclined to suppose this a seedling from the Brown Beurré, than from the Autumn Bergamot.

Crasanne. Pr. Cat. Roz. Duh. Mil. For. Coxe.

Bergamotte Crasanne. Roz. syn. Duh. syn. Mil.
Crasanne Bergamot. Pr. cat. 25 ed.
Crésane and Crasane.
Beurré plat, or *Flat butter pear.*

A fine pear of this variety is round and somewhat turbinate, measuring three inches, or nearly that in breadth, and thirty-four or thirty-five lines in height. The stem is slender, and eighteen to twenty lines in length, rather bent or curved, and inserted within a small cavity. The eye is placed in a slight depression with a very smooth circumference. The skin is a grayish red before maturity, but when the fruit is ripe, it becomes a little yellow and is scattered over with red spots. The flesh is very melting, with abundance of juice, which is cool and sweet, combined with a slight degree of acidity, and of an exquisitely perfumed flavour. The seeds are brown, but very often wholly deficient even in the cells where it might be expected they would be perfect; in such case their place is supplied by a pulp rather less melting than the residue of the fruit, and in which some very small stony particles, are frequently found. This pear is one of the choicest varieties that is cultivated, and there are few that can bear a comparison with it; it ripens at the end of October or early in November, and keeps a long time before it becomes soft. Fessenden remarks, that around Boston, this pear has been found more apt to crack than any other variety whatever, and that it will not suit the country in that section of the union unless sheltered.

Variegated Crasanne. Auth.

Crasanne panachée. Roz. Duh.

This does not differ from the preceding as regards the fruit, but varies in the leaves, which are small and oblong, edged with white and undulated, with very delicate indentures, which are slight and acutely formed. The tree is very pleasing to the view, but ought not to be trained in an espalier form, nor planted in a too hot exposure, as the sun reddens and injures the white border of the foliage.

Bergamotte Cadette. Pr. cat. Roz. O. Duh.

Bergamot cadet.
Poire de Cadet. Roz. N. Duh.

In form, this pear is commonly turbinate, being thirty-one lines in height, and thirty-two in diameter, with a large stem eight or ten lines in length, which is inserted within a slight cavity; the skin is smooth, yellow on the shade side at the period of maturity, and slightly tinged with red next the sun; the flesh is pleasant, but soon becomes stringy. The fruit ripens in October. The tree is vigorous in its growth, and very abundant in its produce, and succeeds equally well in either pear or quince.

Easter Bergamot. Pr. cat. Mil.

Winter or Easter Bergamot. Pr. cat. 25 ed.
Bergamotte de Pâques. Roz. Duh. Mil. For.
Bergamotte d'hiver. Roz. syn. Duh. syn.
Bergamotte Bugi. Mil.
Bugi. Quin? Evel?
Tarling, or *Terling*, } of some English writers.
Robert's keeping, }
Paddington, }
Paddington, or *Easter Bergamot.* Coxe.

This pear is almost regularly globular, in some cases partially turbinate, being thirty-two to thirty-six lines in height; the eye is situated in a very small cavity, and most generally even with the extremity of the fruit; the stem, which is four to eight lines in length, is also inserted within an extremely small cavity, whose edges are quite round; the skin, which is a light green, varying to pale yellow at maturity, is speckled over its whole surface with small gray dots, and acquires a slight russet tinge next the sun. The flesh is half melting, not very sweet, but abounds in rich juice possessing a very pleasant perfume. The seeds are brown, large, round at one end, and pointed at the other, and in part abortive. This pear is scarcely fit to be eaten before the month of April, and it may be preserved until June, after which it becomes mealy and much wrinkled without getting soft; the tree is vigorous, and may be grafted on both the pear and the quince.

Bergamot Sylvange. Pr. cat. N. Duh.

Sylvanche. Roz.
Sylvange.
Bergamot sylvanche. Coxe.

This pear has an exact turbinate form; its height is thirty-two lines and its diameter thirty. The eye is small, and inserted within a very slight depression, similar to that whence the stem emanates, which does not exceed six or eight lines in length; the skin is light green even at complete maturity, interspersed with grayish specks, often very near together on the end next the eye; the flesh is exceedingly melting, of a sweet, rather rich and very pleasant flavour. The seeds are frequently abortive, and the fruit ripens in October.

Bergamot de Soulers. Pr. cat. Roz. Duh.

Bonne de Soulers. Roz. syn. Duh. syn.
Bergamotte of Soulers.

This fruit is twenty-five lines in height, and thirty in diameter; the head is more round than is the case with other Bergamot pears, and the eye is but slightly depressed; the stem is rather large, eleven lines in length and somewhat sunk in the fruit; the skin is shining, very light green on the shaded side, scattered over with dots of a deeper shade of the same colour, and changing to yellow at maturity; the side next the sun acquires a slight tinge of brownish red; the flesh is melting, sweet, and of an agreeable taste; the seeds are large, well matured, and terminate in a very long acute point. This fruit ripens in February and March, and the tree may be ingrafted on both pear and quince.

Naples Pr. cat. Duh. Mil. For. Evel.
Poire de Naples. Roz. N. Duh. Quin.
Easter St. Germain. Mil.

This pear has usually a turbinate form, sometimes it is nearly round, the peduncle and the eye being even with the fruit; the height of the largest is thirty lines, and the diameter thirty-two, but frequently far less; the stem is scarcely ten lines in length, and the skin is almost wholly a light green, which changes to pale yellow at maturity, and occasionally the side exposed to the sun takes a partial tint of red; the flesh is half breaking, almost melting, of a pleasant and somewhat musky flavour; the seeds are brown and proportionably large in comparison with fruit. In the old edition of Duhamel this pear is said to ripen in February and March, but in the new one it is remarked that it begins to ripen in November. The tree is of vigorous growth and quite productive, and succeeds on both pear and quince stocks.

Bezi De La Motte. Pr. cat. Roz. Duh.
Bezy de la Motte. For. and others.
Besi de la motte. Quin. Evel.

This pear has a turbinate form, it is enlarged next the eye, but next to the stem the size is much diminished; its height is thirty-two to thirty-six lines, and its diameter nearly as much at the largest part: the stem is short, being only six or seven lines in length and inserted within a cavity, the edges of which are generally even and regular; the skin is green, acquiring a little yellow when the fruit is ripe—it is scattered over with very numerous russet specks, and in some sections these specks are very contiguous to each other, and formed into large irregular groups; the flesh is white, melting, and of a bland and very agreeable flavour. This fruit has a great affinity to the Crasanne, in form, colour, and flavour; it ripens at the end of September or in the course of October, and soon becomes soft. Duhamel says it does not succeed well on dwarf st cks

St. Martial. Pr. cat. For.
Saint Martial. Mil.
Angelique de Bordeaux. Roz. Duh.
Saint Marcel, } of some
Gros Franc-real, or Franc-real gros, } Fr. col.
Christalline, a syn. Lond. Hort. cat. (Auth. vide Quin. and Evel.)
Poire Angelique, } Mil. syn.
Poire douce, }
Angelic pear, }
Angelique de Rome. Mil. syn. erroneously.

The form of this pear approximates to that of the Winter Bonchretien; it is three inches wanting a line in height, and as it is flattened in the course of its length, its diameter varies considerably—in one direction it is two inches eight lines, and in the other two inches and five lines only; the eye is small and situated at the base of a narrow cavity; the stem is large, eighteen to twenty lines in length, somewhat fleshy at its insertion in the fruit, which is even with the surface; the skin is smooth, pale yellow, and almost whitish on the shade side, reddish on the part exposed to the sun, and sometimes slightly speckled with brown around the eye; the flesh is breaking, and of a sweet and pleasant flavour; the seeds are brown, moderately large, and terminate in a long acute point. This is a winter fruit and keeps a long time; the tree is somewhat delicate and does not do well on the quince stock, and is not very vigorous on the pear.

Angelique De Rome. Pr. cat, Roz. Duh.

This pear is of medium size, and has an oblong appearance, although its greatest diameter is nearly equal to its height, the one being twenty-seven lines and the other twenty-eight—the part about the head is quite round, and the eye is placed in a small cavity; the stem is seven to nine lines in length, large, and inserted even with the fruit, or in a narrow groove; the skin is rough to the touch, of a pale yellow or lemon colour, and sometimes very slightly tinged with yellow on the sunny side; the flesh is half melting, of a somewhat yellow hue, with a sweet and rather rich flavour. This pear ripens in December, January, and February; the tree is vigorous and may be ingrafted either on the pear or quince.

[For the New-York Farmer.]

ART. CCXI.—*Reply to a "Notice of a Report of the New-York Horticultural Society, on the subject of a Premium for destroying Insects," as published in the 10th number of the New-York Farmer and Horticultural Repository.* By WM. WILSON.

The sentiments expressed on the Report of the New York Horticultural Society, on the subject of Premiums for destroying insects, from the pen of a "patriotic lady of New Jersey," contains such marked disapprobation of the views of the committee, appointed by the Society to draft said report, that the credit of the Society, as well as the interests of horticulture generally, evidently require a more ample, open, and impartial investigation of the nature of those grounds on which such disapprobation is founded. The patriotic lady states, that in the 'Report of the committee of the New York Horticultural Society, respecting a premium for destroying insects, it is there stated and acknowledged that "the ravages committed by these minute, tho' powerful foes, will sometimes utterly destroy the produce of a whole season, in other respects the most favourable, and thus occasion the most serious loss to the cultivator." She then remarks, that "the magnitude of the evil was therefore apparent to the committee, but they doubted (!!) the efficacy of the plan proposed by the Pennsylvania Horticultural Society." Did the respected lady imagine that the committee of the New York Horticultural Society were to consider the circumstance of the plan's being proposed by the Pennsylvania Horticultural Society as an indisputable ground for them to yield their unqualified approbation?

Those days in which it was fashionable for men to yield their assent to such ideas as emanated from sources of high respectability, on the ground of such sources being sufficient authority to preclude any necessity for further investigation, are gone by; and the report of the committee of the New York Horticultural Society contains a plain statement of facts, highly illustrative of the strong reasons that exist for justifying them in the doubts which they express.

In the next sentence after the one above quoted, the lady states, "Undoubtedly it was the purpose of this last mentioned Society particularly to draw the attention of all Horticultural Societies to the *one insect*, the Curculio; for it was particularly for this object that they proposed a premium." The reasons will be explained why the correctness of the injurious effects attributed to the Curculio are doubted. She proceeds in stating that "the ravages of other insects are, to agriculturists, serious enough, but these belong to their province. The insects which puncture the bark and root of fruit and ornamental trees, such as the peach worms (Egesia exitiosa) the insect which produces a black warty excrescence on plum and cherry trees, are fast disappearing from every decent man's orchard; for the larvæ of these insects are stationary, visible, and within our reach. They are, however, but as dust in the balance compared to the mischief and ravages of the curculio or fruit bug." The above sentences show the facility with which those not sufficiently acquainted with the nature and extent of the subject on which they write, are led into the most ridiculous errors. Should the horticultural practice of the New Jersey lady be in accordance with the absurd ideas expressed in her writings, it is no wonder to hear her complain of the wretched condition of her extensive orchards. Whatever injuries these may have sustained from the attacks of the curculio, or with whatever degree of success she may have been able to overcome the Egesia, or peach worm, she is greatly mistaken when she asserts that the last "are fast disappearing from every decent man's orchard," or that they are "but as dust in the balance, compared to the mischief and ravages of the curculio or fruit bug." The observations on these insects by the committee of the New York Horticultural Society have not been entirely confined to the boundaries of a city. The writer of this, who was one of the members of that committee, has has had the management of several orchards, at various situations of from five to fifty miles distance from the city. And from one of which he has sent five hundred dollars worth of cherries in one season to the New York market. He has also been in the habit of examining the fruit in various orchards in the vicinity, as well as within the limits of the city, for many years past, and yet has never been able to discover the curculio in any kind of fruit until after it had fallen and laid some time on the ground, while the larva of the peach worm has been found in almost every fruit, on its first falling to the ground. I am aware it may be suggested that the egg of the curculio may have been deposited in the fruit while on the tree, and thus cause it to drop, but it would certainly be contrary to all sound principles of philosophy to reject a visible cause of an effect, and ascribe such an effect to any other founded merely on conjecture. Neither are there any grounds, so far as I have been able to find out, in this vicinity, to suppose that the curculio acts, even as an auxiliary to the Egesia, in causing the fruit to fall prematurely from the trees. On the contrary, it may be seen by a communication, published in the New York Farmer and Hor. Repository, 2d vol. p. 153, that there are grounds to believe that their preservation is of more value to the orchardist, where the Egesia exists, than their destruction would be. Be this as it may, the ensuing season will, it is hoped, be embraced for more satisfactory investigations of this subject. At present I have no hesitation in predicting, from what I have hitherto observed, that for one fruit that falls prematurely with any visible evidence of its having been effected by the curculio, ninety-nine will be found to contain the visible, active, lively larva of the Egesia, or peach worm.

Should the above statements respecting the only known position in which the curculio attacks our fruit, namely, after it falls to the ground from the effects of the Egesia, be correct, the New York Horticultural Society might have found themselves in rather an awkward situation, had they assented to the awarding of premiums for the extermination of a shadow instead of a reality. There are also facts of a more cheering nature, that operate against the idea of any such extreme destructiveness being correctly attributable either to the curculio or any other of our fruit destroying rascals. Many thousands of bushels of the peach, and other fine fruit are sent yearly to the markets of this city, from New Jersey, by men who have found their labours well repaid by the judicious management of their orchards, and who in all probability have troubled their heads as little about the curculio as they have about the cuckoo.

The lady next proceeds to notice the subject of caterpillars, birds, poultry, &c.; the woful condition of her own orchards; horticulturists; proper objects to which the efforts of those formed into a society should be directed; asserts that horticultural and agricultural societies are very distinct in their natures, and that from the want of an exact knowledge of what properly belongs to each other, they are constantly infringing on each others peculiar pursuits, and thereby rendering their respective labours more complex; charges the New York committee with having diverged when the subject of the curculio was under discussion, from their not exactly attending to the definition of these two terms, agriculture and horticulture!!! She states farther, that said committee had nothing to do with the wevil, Hessian fly, rats, mice, and other grain and grass destroying insects and animals, &c. &c. The whole displays such a new fangled strain of sentiments, so totally different from every other writer on subjects connected with horticulture that I have ever met with, that it appears the most prudent disposal of the whole, at present, after the subject of the curculio, is to leave it as it is, without any further investigation or comment. It certainly needs none; being sufficiently ludicrous in its native contour, without any further exposure from the prolonging application of the tool of a practical horticulturist.

New-York, Nov. 1830.

ART. CCXII.—*Important information to Silk cultuists, on the mode of making Meadow, or Silk Worm pasture grounds, with Mulberry seed.* By Dr. FELIX PASCALIS.

Two years ago, a sufficient fund was tendered to the Royal Agricultural society of Lyons, by Mons. *Math. Bonafous, of Piedmont*, and accepted: to be distributed in prizes of encouragement to any culturist of their department who could furnish him with experimental results of the above plan that might be worthy of consideration and recommended to the public.

This celebrated contributor to agricultural improvements, is the author of many works especially intended for the promotiom of the culture of Silk in Italy, and in France, and is in that capacity the first disciple of the *Count Dandolo*. From his writings the subscriber has taken copious extracts in his *Practical Instructions*, in two small volumes lately published in New York.

Mons. M. Bonafous affirms "That pasture grounds of Mulberry for Silk Worms, are in existence in China, and that the same mode was introduced in one of the United States of America, the inhabitants of which pay particular attention to the culture of Silk." To this we can bear evidence, as we have read in the preceeding volume of the New England Journal that this practice of providing for a ready crop of Mulberry foliage was adopted by some farmers in Connecticut. Our correspondent adds, "that the young plants can be topped two or three times before the mounting and spinning of the Silk Worms, and that the stalks left might by due process be prepared and employed for making that kind of paper, in imitation of the China paper, which is so much sought for by the engravers."

"But further experiments are desirable for the benefit of our culturists to know what modifications this rearing must command according to climate, and other localities. Would the sowing be best early in the spring, or at the end of the summer, in drills, or broad casts? Will not the moisture of a foliage thus raised so near the ground produce a worse quality of silk, and would it be sufficient or expedient to subject the fodder to some kind of drying process?" Be it as it may, the advantages of a mulberry pasture ground are so important that they cannot fail inviting great attention and experiments to the friends of this interesting culture.

1. To those who have not yet any tree at their disposal, and are discouraged by the tedious prospect of 3 or 4 years labor to form an orchard: to others who are temporary tenants only of the ground they cultivate, this method would afford the means of an immediate crop.

2. It could always be effected on a smaller extent of soil than mulberry orchards or hedges must require.

3. It would impose no labour, no expense, and very little time for the *mowing* of the foliage.

4. The two objects of care, of cultivation and of nursery, with very little difference of time would be simultaneous, less expensive and more profitable.

Finally the benefit of silk culture would be more extended to the poorer class of people, and become more effectually a general blessing for the community.

With these correct views and important observations, Mons. Bonafous invites the agriculturists of North America, to whom he gives the merit of having already, like the Chinese, established the mode of cultivating the mulberry in *pasture ground*, to furnish him also, with the result of their experimental observations, in return of which he has transmitted, through the subscriber, a collection of all his works, to the *American Institute*, and professes by all means in his power, to commune and partake with them all possible advantages of that cultivation, which to this day is the support of the poorest classes of Chinese, Italian, and French population. No trouble in our part for promoting the *Royal Director of the King of Sardinia's garden*, will be spared, since he has confidently and candidly approved of our mode of raising silk worms with the aid of electricity, and their mounting on double rattan slides, as represented in our second volume of the *Practical Instructions*, instead of brushwood.

FELIX PASCALIS.

N. B. A quantity of the best French mulberry seed, may be had at No. 71 Liberty-street; and the *Chinese Mulberry tree* is propagated at Mr. Andrew Parmentier's, Brooklyn; at Mr. Michael Floy's and Mr. Kenney, in New York. The importer has also placed a young tree of the same at Hyde Park, New York, one of the finest horticultural establishments in the state, belonging to Dr. David Hosack.

The country editors of newspapers are respectfully requested to circulate the above notice, and any communication (post paid) directed to Dr. Felix Pascalis, 71 Liberty-street, New York, will be attended to.—*Commercial Adv.*

ART. CCXIII.—*Account of an experiment instituted for the purpose of testing the value of the native breed of Cattle, for giving milk.* By ARATOR.

Mr. Editor—My fondness for good milk and butter, and a desire to know what improvement might be made

in degenerated cows, by a proper course of treatment, induced me, the last winter, to an experiment with eight cows, an account of which I will give you in the hope that some of your readers may be stimulated to improve on it, and that it may, in some degree, be useful.

I erected a house for the exclusive use of these cows, and partitioned off eight stalls in it, four on each side, and between the ranges of stalls a sink was made as a receptacle for the dung and urine. A trough was placed to each range of stalls to hold the food. My cows, with the exception of one of them, (which is of the short horn beef blood) are of a degenerated stock, occasioned by that sort of neglect which has been common in this part of the country; they were poor at the time they were put up, and the whole of them did not give five quarts at a milking. Their food for some weeks after they were put up, was composed of a mixture of cut sugar-cane blade, cut straw and shucks, cotton seed and wheat bran, all boiled together, with a little salt added to the mixture. After the stock of bran was exhausted, the other ingredients were continued with the addition of pot ale, form a whiskey distillery; boiling the food was discontinued at this time. From a period of three weeks after the cows were put up, till recently, the whole of them together gave generally the rise of forty-eight quarts of milk each day; and twleve quarts per day was frequently taken from one of them. How much butter was yielded is not known, but my good wife tells me that considerable addition has been made to her pin money stock by the sale of butter to our neighbors, several of whom have been supplied by her.

The curry comb was used morning and evening on the cows, and the dung and wet litter removed from under them into a receptacle every morning and a new bed of dry leaves from the woods, placed under them.

For the trouble I have had with this small experiment, and the food consumed in it, I have had ample compensation not only from the butter, as already stated, but also from the quantity of milk it enabled me to give my negroes, and from a large quantity of manure for the improvement of my land.—*Southern Agriculturist.*

[For the New-York Farmer.]

ART. CCXIV.—WILSON'S ORNITHOLOGY.—*The House Wren.*

[Continued from page 195.]

The House Wren, according to Wilson, inhabits every part of the United States; yet during a residence of 25 years in the Western District of this state, I have never been gratified to hear its sprightly notes echoing round my dwelling. It has been seen in the neighborhood, however; and I take the whole blame to myself that we have not been better acquainted; for near us there are no old fruit trees with hollow trunks or hollow branches, or even old cornice where the little fellow could build a nest. But a tenement shall soon be provided, with an entrance not more than an inch in diameter, and I shall hope to inform the readers of the New-York Farmer, hereafter, that my overtures have not been treated with neglect.

"This well known and familiar bird," says Wilson, "builds its nest sometimes in the wooden cornice under the eaves or in a hollow cherry tree; but most commonly in small boxes fixed on the top of a pole, in or near the garden, to which he is extremely partial, for the great number of *caterpillars and other larvæ* with which it constantly supplies him. If all these conveniences are wanting, he will even put up with an old hat, nailed on the weather boards, with a small hole for entrance; and if even this be denied him, he will find some hole, corner or crevice about the house, barn or stable, rather than abandon the dwellings of man. In the month of June, a mower hung up his coat under a shed, near a barn; two or three days elapsed before he had occasion to put it on again; thrusting his arm up the sleeve, he found it completely filled with rubbish, and on extracting the whole mass, found it to be the nest of a wren completely finished, and lined with a large quantity of feathers. In his retreat he was followed by the little forlorn proprietors, who scolded him with great vehemence for thus ruining the whole economy of their household affairs. The twigs with which the outward parts of the nest are constructed are short and crooked that they may the better hook in with one another; and the hole or entrance is so much shut up to prevent the intrusion of snakes or cats, that it appears almost impossible the body of the bird could be admitted. They generally raise two broods in a season.

"This little bird has a strong antipathy to cats; for having frequent occasions to glean among the currant bushes and other shrubbery in the garden, those lurking enemies of the feathered race often prove fatal to him. A box fitted up in the window of the room where I slept, was taken possession of by a pair of wrens. Already the nest was built and two eggs laid, when one day, the window being open, as well as the door, the female wren venturing too far into the room, to reconnoitre, was sprung upon by grimalkin, who had planted herself there for the purpose, and before relief could be given was destroyed. Curious to see how the survivor would demean himself, I watched him carefully for several days. At first he sung with great vivacity for an hour or so, but becoming uneasy, went off for half an hour; on his return he chaunted again as before, went to the top of the house, stable and weeping willow, that she might hear him; but seeing no appearance of her he returned once more, visited the nest, ventured cautiously into the window, gazed about with suspicious looks, his voice sinking to a low, melancholy note, as he stretched his little neck about in every direction. Returning to the box, he seemed for some minutes at a loss what to do, and soon after went off, as I thought, altogether, for I saw him no more that day. Toward the afternoon of the second day he again made his appearance, accompanied with a new female, who seemed exceedingly timorous and shy; and who, after great hesitation, entered the box; at this moment the little widower, or bridegroom seemed as if he would warble out his very life with ecstasy of joy. After remaining about half a minute in, they both flew off, but returned in a few minutes, and instantly began to carry out the eggs, feathers, and some of the sticks, supplying the places of the two latter with materials of the same sort; and ultimately succeeded in raising a brood of seven young, all of which escaped in safety.

"*The immense number of insects* which this sociable little bird removes from the garden and fruit trees,

ought to endear him to every cultivator, even if he had nothing else to recommend him; but his notes, loud, sprightly, tremulous, and repeated every few seconds with great animation are extremely agreeable. *Its food is insects and caterpillars, and while supplying the wants of its young, it destroys, on a moderate calculation, many hundreds a day, and greatly circumscribes the ravages of these virmin.'*

(To be Continued.)

ART. CCXV.—*Miscellaneous.—Original and Selected.*

Arabian Horses.—Mr. Rhind, late Agent of our government, has transported to this city from Constantinople, four Arabian stud horses. They are five or six years of age, and considerably smaller than our common horses. Two are sorrel, one grey, and the other bay. The last had been taken from the desert but a short time, and was pronounced the swiftest horse in the Turkish Capital.

Sugar Cane in Louisiana.—In a former number we inserted a report of the Agricultural Society of Baton Rouge, on the cultivation of sugar. In one more recent, in answer to a circular from Mr. Ingham, Secretary of State, the committee of the society say that they were "deceived by the abundant and extraordinary crop of the preceding year, 1828,—a year unexampled, and probably never to be equalled in this country—we magnified the produce, passed superficially over many expenses, and considered as naught the almost annual accidents caused by cold and frosts, by violent winds, tearing up the cane by the roots—by droughts, or heavy and successive rains, by the first of which its quantity is diminished, while the latter greatly impairs its quality—and, finally, by the giving way of our embankments, and the consequent inundations, the ravages of which are sometimes felt for more than fifty miles.

"Nearly all the property in Louisiana, has been converted, or is daily becoming transformed into sugar farms, under the sole, firm and natural belief, that the duty on foreign sugar would be maintained, as a just reward and merited encouragement to our fellow citizens of Louisiana, Georgia, South Carolina, and Florida. The consequence of this transmutation of property in Louisiana, will be, that *her* annual produce alone, even in the most unfavourable year, will more than suffice for the consumption of the United States. Thus will the price fall of itself, to such a degree that were the duty not repealed, the introduction of foreign sugar, by tending to the loss of the speculator, will be rendered utterly impracticable.

"Let not Congress, then, *precipitate* the fall of its fellow-citizens of Louisiana, Georgia, South Carolina, and Florida. Let it only trust to the ordinary progress of time, and in a few years, sir, the reduced price of sugar, caused by its surplus over its consumption, will be equivalent to a repeal of the duty of three cents. Then, and with this hypothesis before them, will those who have made loans, be enabled to liquidate, or at least to diminish considerably their debts.

"We will make but one remark more, but one of importance to the interests or the Union. It is this—that the abatement of the repeal on foreign sugar, after having promoted the ruin of Louisiana, and the destruction of her sugar farms, a product best adapted to her soil, and which assuredly alone repays the planter for the sums he has advanced and the labours he has undergone, would immediately tend to the interest of foreign commerce, and particularly to that of the Havana merchants, who form our chief supplies, and who, having nothing more to fear from a competition with us, would exercise at their will, an unlimited monopoly, which would be more burthensome to the consumers of sugar in the United States than the present duty, which moreover tends greatly to the promotion of our finances."

To prevent the Rot or Mildew of Grapes.—Mr. George J. F. Clarke, in the Southern Agriculturist, supposes this disease of the fruit of the vine to arise from the root being too near the ground. A few days of hot drying weather absorbs so great a portion of the moisture from the roots that, on return of a plentiful shower, they drink in the rain so copiously as to produce a repletion that results in the rot. Mr. C. says the vine, under favorable circumstances, has a strong propensity to form a tap root, which protects the vine from the extremes of moisture and dryness. To favor the formation of this tap root, deep planting is requisite. Moderate watering of the plants in dry weather prevents exhaustion in a drought, and repletion on the return of rain. Mr. C. states the following:

"A very intelligent friend informed me, a few days ago, that a Swiss, of his acquaintance, settled in Missouri, plants his vines thus: he digs a ditch the length of a row, and three or four feet deep, and at the bottom of this ditch he plants long cuttings, (eighteen or twenty inches,) a common depth below it. On the bottom of this ditch he scatters a little manure, and from time to time as his vines ascend, (which they do most vigorously,) he fills in the surface of the ground with the poorest earth he can get, (to discourage the growth of side roots, we may reasonably suppose, but a matter of no importance to our text,) and that their success is surprising; and no rot or mildew is known among them. The ends of his cuttings must lay four or five feet deep."

Cure for Bloating in Cattle.—The Volatile Spirit of Ammonia is said to be used in France with great success in the cure of Bloating, a disease arising from excessive eating of green grass. "Its action is chemical," says the American Citizen, "decomposing the gas generated in the stomach by fermentation." We suppose the gas generated is the carbonic, and that the Ammonia does not decompose but unites with it. We know not why lime water would not have the same effect.

Officers of the Horticultural Society of Rensselaer County.—We perceive by the Troy Sentinel that this society has gone into successful operation. The constitution and by-laws are substantially the same as those of the New York and Albany Horticultural Societies. The officers are, President, *John D. Dickinson*, of Troy; 1st Vice-President, *Cornelius Lansing*, of Lansingburgh; 2d Vice President, *Herman Knickerbacker*, of Schagticoke; 3d Vice President, *Richard P. Hart*, of Troy; 4th Vice President, *John Carpenter*, of Hoosic; Corresponding Secretary, *O. L. Holley*, of Troy; Recording Secretary, *Albert P. Heartt*, of Troy; Treasurer, *John Mc Coun*, of Troy.

Horticultural Society of Charleston.—A Society under the above title has recently been established at this place, the objects of which, are to effect an improvement in the culture of such vegetables and fruits as are now grown among us; to introduce new species and varieties, and to encourage a taste for Floriculture and ornamental gardening. The society has determined on establishing an annual exhibition of vegetables, fruits and flowers, at which premiums will be awarded, for the best specimens. Also, for such others as cannot be exhibited at those seasons.

Southern Agriculturist.

Rules for determining the temperature of a country. The fact that a degree of latitude is equal to a degree of Fahrenheit, and that 400 feet of elevation is equal, also, to a degree of Fahrenheit, is original and curious, and will go far to assist us in determining the clime of any country.—*Amer. Quart. Rev.*

Temperance.—That which only eighteen months ago was deemed impracticable, is now ascertained to be easily accomplished. Work, hard work, in hot weather and in cold, in wet weather and in dry, on land and on water, can be done without the use of spirits. There is no difficulty in procuring men to labor without it. Wherever the employer has resolutely affirmed his determination not to furnish the article, the laborer has ceased to expect it, and many have experienced and acknowledged the benefit of the change from former customs. Two parties of men employed for the season in repairing the turnpike road have done their work without the use of spirits. One brick yard has been managed on the same principle, with success. Buildings are now raised and completed without the aid of distilled liquors. Collections of persons for the assistance of a neighbor, commonly known by the name of Bees, deem themselves well treated without being furnished with liquid poison.—Seven blacksmith shops, and some shops of other mechanics, now have their work done on the principle of temperance. Upwards of seventy farmers, members of this society, besides many others who have not yet become members, now manage their farms on the temperance principle, and felicitate themselves on the happy results to themselves, and to the labourers in their employ.—*Annual Report of the Greene County Temperance Society.*

The petrified Forest of the West.—The Illinois Magazine contains an article relative to the existence of a forest of petrifactions in Missouri. For a distance of twenty miles, over a high, open prairie, inaccessible to inundation, on the margin of the Missouri river, a few miles below its junction with the Yellow Stone, the earth is covered with the stumps, roots, and branches of petrified trees, as if a great forest had been transformed into stone, and prostrated by some mighty convulsion of nature. Some of the stumps are fifteen feet in circumference. The editor of the Illinois Magazine has the following remarks:

"The existence of petrifactions, at a point inaccessible to inundution, is, as far as we are advised, a phenomenon in scientific history. The agency of water and of mineral substances is supposed to be necessary to the production of these formations; we know of no instance in which they have been produced by the action of the atmosphere, nor can we imagine any rational grounds upon which such an hypothesis could be sustained. If we are right in our conjecture, the country in which these petrifactions exist must have been, at some period submersed in water. But when? Are these the remains of antedeluvian trees? Did Noah's flood cover this portion of the earth long enough to produce such an effect? Or have these high grounds been covered with water at a period subsequent to the general deluge?"

South Carolina Silk and its Manufacture.—We have in our possession a pair of silk stockings, the material of which was raised by Miss Harriet Winn, of Winnsborough, in Fairfield District, and knit by that young lady's own hands; which every one to whom we have shown them, pronounce particularly beautiful. They are certainly beyond any ideas that we had formed of the perfection which this interesting culture had reached in South Carolina. It is almost impossible to distinguish them from the finest specimens of woven hosiery, and they entitle our fair friend to very great praise for patriotism and ingenuity. Such a specimen, in our opinion, settles the practicability of silk cultivation in our state.—*Camden Journal.*

A method of making Camellias produce seed; by M. Laffay Fourneir.—The author says, that having seen Camellias filled with seeds in a garden, he remarked those plants with more attention, and perceived, that the most of them had their branches mutilated and the ends broken off. In February following, Mr. Laffay suppressed the wood buds, which accompanied the flowers, on several of his Camellias, in order to direct the sap in the flowers and nourish the seeds; the experiment was successful, and has been repeated since with equally good fortune, particularly with Camellias cultivated in pots.

Gigantic Flower.—The most important discovery throughout our journey was made at Sumatra; it was a gigantic flower, of which I can hardly attempt to give you any thing like a just description. It measured across from the petals rather more than a yard, the nectarium was nine inches wide, and as deep, and estimated to contain a gallon and a half of water; and the weight of the whole flower was fifteen pounds!—The Sumatran name of this extraordinary production is Petimun Sikinbili, or Devil's Siri (beetle) box. It is a native of the forest. This gigantic flower is parasite on the lower stems and roots of the Cisus Augustifolia of Box, and of a deep dusky red. The flower when fully expanded is in point of size, the wonder of the vegetable kingdom; the breadth across from the top of the one petal to the other is three feet. The cup may be estimated capable of containing twelve pints; its inside is of an intense purple, and more or less densely yellow, with soft, flexible spines of the same color. The fruit never bursts, but the whole plant gradually rots away, and the seeds mix with the putrid mass.—*Memoirs of Sir J. Roffles.*

Profitable Cows.—Dr. Samuel B. Woodward, of Weathersfield, took the first premium recently at the Hartford exhibition of Cattle, for having produced two Cows, yielding, in butter, milk, &c. the following result, from the Doctor's statement:

In May, 110 lbs. 2 oz.; June, 109 lbs. 11 oz.; July, 73 lbs.; August 80 lbs. 8 oz.; September, 101 lbs. 8 oz.; October, 81 lbs. 12 oz.—Total, 576 lbs 9 oz.

On the 1st of September, another cow was added, which including what was made last week in April, to

wit, 21 lbs. would make 597 lbs. 9 oz. in six months.

Besides all this, milk and cream have been sold to the amount of $3, and a family of 16 persons furnished with milk and cream, worth at least $1 a week, at 4 cents a quart, and pork fed to the amount of at least $1. Not a pound of butter was sold for less than one shilling per pound.

Butter,	$100.
Milk, &c. sold,	3.
Milk used in the family,	26.
Pork,	15.
	$144

The cows were fed on grass only after the middle of May, before which they had rowen hay, and two quarts of meal a day. One cow is six years old, the other five years—one is half blood Devonshire, the other is common stock.

The calves from the three cows sold in the spring for $15 75.

144 00.

Whole product, $159 75

Algiers.—Accounts from Algiers of the 27th of September, state that a company is forming for bringing into immediate cultivation the plain of Mitidja, which evtends over about two leagues, bounded by the sea, the foot of the Little Atlas, and the rivers Larache and Mazrafran, and suited to the growth of cotton, indigo, sugar, maize, coffee, corn, and other produce. At Bona and Oran there are other plains equally suitable for similar culture. When these shall be brought into bearing, they will serve as points from whence to spread civilization throughout the south.

Indians in Connecticut.—We have noticed, says the Norwich Courier, with much pleasure, the manifest improvement in the condition of the Mohegan tribe of Indians, from the judicious management of their present excellent agent, Mr. Williams. The extensive farms belonging to the tribe, have assumed a new aspect, and the Indians themselves, better clad and satisfied with the uprightness and uniform kindness of their overseer, seem in a measure improved in their character.

Jefferson College, Penn.—A new college edifice will be under roof this fall. It is 90 feet by 60, designed to afford a spacious hall, with ample rooms for recitation, library, apparatus, and the literary societies, besides a basement story for a refectory. A committee has been appointed to purchase a farm for the purpose of agriculture and horticulture, as soon as sufficient funds can be procured.—*Ed Rep.*

Vegetables discovered in boring for Water.—Mr. Horton, a gentleman who has been engaged in boring for water in Providence, R. I., has presented to the public some remarkable results. In his second experiment in boring, he selected the extreme point of a wharf, many yards from the original land. He bored through a stratum of mud, then through a bog meadow, containing good peat, then through sand and quartz gravel. At this point water, impregnated with copperas and arsenic broke forth, but determining to proceed farther, Mr. Horton next struck a vineyard, and drew up vines, grapes, grape-seeds, leaves, acorns, hazel nuts, pine nuts, and the seeds of unknown fruits, together with pure water. This was 35 feet below the bed of the river.

Culture of Cranberries.—A gentleman in Barnstable, Massachusetts, has discovered that the cranberry is as susceptible of cultivation and improvement as the Strawberry. On about an acre of ground he has raised for the last ten years an average of about 70 bushels a season, sometimes a hundred. The following account of his Cranberry yard is from the Barnstable Journal.

Sandy bog land is the soil best adapted to the growth of the Cranberry plant, and it should be kept well drained. Captain Hall has a tract of about four acres enclosed, which he calls his "Cranberry Yard," of a damp, sandy soil, surface nearly level, and, where not planted with Cranberries, covered with rushes and swamp brush. The Cranberry vines were set around on the borders of the "yard," some on land elevated two or three feet above the general level of the surface. The vines grow most vigorouly, and the berries are of a better quality and more abundant where the soil is most sandy and damp. In very dry seasons, the Cranberries are liable to be eaten and destroyed by worms, but, in general, they are, under skilful management, as certain a crop as any kind of grain or garden vegetables.

The manner of transplanting is simple. Holes are dug four feet apart; only they are made deeper than for corn; into each of these sods of vines are placed. The Cranberry has creeping roots, spreads very rapidly, and in three years from the time of planting will entirely cover the ground. If the land is overgrown with bushes, they must be first removed; but it is not necessary to destroy rushes, for the cranberry vine will do it in a few years. When the land is very low, and covered with a thick growth of weeds and rushes, Cap. Hall practises spreading over it a quantity of beach sand before planting. The fall is the best season for transplanting. No other cultivation is performed or required, than to keep the land drained, and cattle from injuring the vines. The Cranberries sell from $1 00 to $1 50 per bushel, and the cost of picking is 20 cents per bushel.

Cape Brocoli in Baltimore.—This most excellent vegetable has been quite common in our market, and is raised in great perfection. A day or two since a couple were presented to us by Mr. Samuel Feast, raised at his garden on the Frederick road, which surpassed any we had before seen, for size, firmness, and richness. We were so anxious to test their excellence by the *palate*, that we quite forgot the more scientific but more fallible tests of the rule and scale; but we do not overrate them in saying that they measured ten or twelve inches in diameter exclusive of the leaves. They were of the improved purple kind.

Owing to the peculiarly favorable season, Brocoli and Cauliflowers, are cheap as well as plentiful in our markets, and thus many who have heretofore looked upon them as delicacies beyond their reach, have been enabled to try them; and hence a knowledge of their good qualities has been diffused, and the gardeners will be encouraged to extend the cultivation of them by an increased demand. We have seen fine large Cauliflowers and Brocoli sold at 6¼ cents, such as could seldom have been obtained in any previous season for less than 12½ cts. and such as we have often seen sold at 25 cents.—*A. Farmer.*

Scratches in Horses.—This disorder is too well known to all who own these noble animals, or deal in

them, to need a particular description of it. The remedy is simple, safe and certain, in all cases which have come to my knowledge, however inveterate. It is only to mix white lead and linseed oil in such proportions as will render the application convenient, and I have never known more than two or three applications necessary, to effect a complete cure.—*Turf Register.*

Statistics of the Netherlands.—The country comprising this part of Europe, is in extent about one ninth part of France and two sevenths of the island of Great Britain. The roads and canals cover a twenty-sixth part of the kingdom. In 1827 the population was 6, 116,035, and exceedingly dense. The average annual addition for the five years preceding 1828, was at the rate of 10,982 per million. The agriculture of the Netherlands has long been distinguished for its productiveness, variety, and good methods. The total value of the agricultural capital has been estimated at 433, 153,333*l.* sterling; and the net yearly produce of the agriculture at 16,698,390*l.* Manufactures, the metallurgic arts, and distilleries, are in a very flourishing condition. There are three hundred distilleries at *Schiedam*, one hundred in other parts of Holland, and about forty in the other northern provinces. The annual produce of this branch of industry is valued at 34, 000,000 of francs.

The sum of the manufacturing industry of the Netherlands is believed to be about 28,125,000*l.* sterling per annum. There are in progress great undertakings for internal improvement. The canal which is to connect the Meuse and the Moselle by a course of fifty leagues from Liege to Wasserbilling is said to be "one of the principal speculations in which his Majesty of the Netherlands is a partner." An association has been formed with a capital of 6,000,000 of Florins, for draining the lake of Haarlem, which covers a surface of 50,000 English acres. The most active agent in this gigantic enterprize is M. de Stappers, the inventor of a new pump intended to be used in it, which emits water without being moved by the common method of pumping, but by the pressure of steam wind, or animal force. It raises 1,000 cubic feet per minute.

The public debt of the Netherlands is stated at 3, 800,000,000 francs, including the old debt, which does not carry interest; the debt which is really a burthen, is of 1,664,699,000 (?) francs to each individual of the kingdom.

To cook the Melongena, or Egg Plant.—The egg plant when cooked in the following manner, is said to be a delicious treat for amateurs. Choose the fruit when it is of a full purple colour, cut it in two lengthwise, and take out the whole of the inside, leaving the rind uninjured. Chop up an onion, (a clove of garlic can be used if preferred,) grate a good sized slice of stale bread, season with pepper and salt, thyme, majorum, or summer savory, and a little green parsley; add two or three ounces of butter, and mix the whole immediately with the meat from the plant. Then fill the two halves, add a clove or two to each, and place them apart in a spider, or oven of any description.—Let there be sufficient heat to brown them, and in half an hour they will be done. This minced preparation may also be baked in small oval pie dishes.

It may also be prepared in a less scientific and more simple manner, as follows. Cut it into slices about a quarter of an inch thick, put them into a dish and pour on boiling water, let them remain a minute or two; drain off the water, season with pepper and salt, or with thyme, majorum, garlic, or summer savory, according to the palate to be suited; dust them with flour, and put them into a frying pan, which should be ready with hot beef dripping or lard; when browned on one side turn them and brown the other. —*Thorburn's Catalogue for* 1831.

Obituary.—Died on the morning of the 27th inst. *Mr. Andrew Parmentier*, proprietor of the Horticultural Garden, at Brooklyn, L. I., in the 50th year of his age. In the death of Mr. P. the public have met with the loss of one who has done much to increase the taste for Horticulture, and to improve landscape gardening—his friends and acquaintances one who was inoffensive in manners, and amiable in disposition—and his family, a kind husband, and a tender parent. "He died," says his daughter in a letter to the Editor "with all the sentiments of a Christian, and was not only resigned to die, but even wished for death"

By his request, and the advice of friends, Mrs. Parmentier will continue the establishment. From her knowledge of plants, the interest she took in the pursuits of her departed husband, and the capabilities of conducting the business, which she has manifested in his occasional absence, we are well persuaded she will succeed, especially when we consider the sympathies which a widow with a large family of children excites in the breasts of our generous countrymen.

Average Price of Vegetables sold at Washington Market, for October and November, 1830.

Cauliflower, a good supply, and excellent in quality, at from $1 to $1 50 cts. a dozen. *Brocoli*, at from 50 cts. to 1 00 per doz. *Cabbage*, at from 25 to 50 cts. per doz. *Savoy*, at from 37½ to 62½ cts. *Celery*, from 6 to 8 cts. per bunch. *Turnips*, from 30¾ to 37½ cts. per bushel. *Potatoes*, from 25 to 50 cts. per bushel. *Peppers*, 18¾ cts. per hundred. *Cucumbers*, from 18¾ to 25 per hundred. *Lettuce*, from 12½ to 15 cts. per doz. *Endive*, from 18¾ to 25 cts. per doz. *Tomatoes*, from 12½ to 25 cts. per peck. *Egg Plant*, from 25 to 37½ cts. per doz. *Green Corn*, from 50 to 75 cts. per hundred. *Okra*, from 18¾ to 25 cts. per hundred. *Carrots*, from 3 to 4 cts. per bunch of 5. *Beets*, from 3 to 4 cts. per bunch of 5. *Parsnips*, from 3 to 4 cts. per bunch of 5. *Lima Beans*, from 50 to 75 cts. per bushel. *String Beans*, from 25 to 37½ cts. per bushel. *Salsify*, from 4 to 6 cts per bunch of 12. *Onions*, from 37½ to 50 cts. per bushel. *Garlic*, 8 cts. per pound. *Parsley*, 3 cts. per punch. *Horse-radish*, from 3 to 6 cts. per bunch. *Leeks* and *Parsley*, 12½ cts. per bunch of 9 bunches. *Sorrel*, from 25 to 30¾ cts. per bushel. *Water-cress*, from 37½ to 50 cts. per bushel. *Sweet Potatoes*, from 50 to 75 cts per bushel. *Radishes*, from 12 to 18 bunches for 12½ cts. *Cranberries*, from 18¾ to 37½ cts. per half peck. *Apples*, from 25 to 62½ cts. per bushel. *Pears*, from 37½ to 50 cts. per bushel. *Grapes*, from 8 to 18¾ cts. per half peck. *Peaches*, from 50 cts. to $2 per bushel. *Plums*, from 50 cts. to $2 per bushel. *Melons*, from 1 to 4 cts each. *Squashes*, from 2 to 6 cts. each. *Pumpkins*, from 4 to 12½ cts. each. *Pot-Herbs*, a great variety, from 12 to 14 bunches for 12½ cts.